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MANUFACTURERS'  
**DOMINION ADVERTISER.**

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A RECORD  
OF THE  
MANUFACTURING INDUSTRIES OF CANADA,  
WITH  
DESCRIPTIVE SKETCHES  
OF SOME OF THE  
LEADING MANUFACTORIES, PRINCIPAL TOWNS, &c.

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## PREFACE.

IN presenting a work of this kind for the first time to the public we feel that we have only entered, as it were, on the outskirts of the subject; not having been able to gather all the information we desired on so important a subject as the manufactures of the Dominion, we have, however, done our best to keep faith with our advertisers, and to present an attractive, readable book to the reader, which contains much interesting information with regard to our manufactures, and some account of the principal places where manufactures are carried on to any extent. For many of the descriptions of towns and villages we are indebted to the valuable information contained in *Lovell's Gazetteer of British North America*, and we return thanks to the Lovell Publishing Company for allowing us to make use of this work. We are also indebted to Morgan's *Parliamentary Companion*, for valuable information concerning the composition of the present House of Parliament, &c.

Manufacturing in the Dominion is yet in its infancy, and it needs wise and careful training to develop it into the full strength of manhood; it is a vigorous infancy, but it will need tender and judicious nursing to bring it to that perfect development which the country is capable of. Nature designed Canada as a thoroughly self-sustaining country; with the finest water power in the world, the grandest rivers, the most noble forests, the most magnificent lakes, and an extensive and fertile country, the Dominion needs little, if any, outside help to furnish all the necessities, and even the luxuries of life. The backbone of a country is its manufactures. Nature does much, but leaves man to complete the work to suit his own taste. Nature has done much for us by supplying us with almost inexhaustible supplies of wood, iron, coal, water and other necessities for enabling us to develop our own resources; and it remains for man to take advantage of the bounty of nature and turn it to good account.

Within the brief space of half a century the industries of Canada have developed with an astonishing rapidity, in the face of great and numerous difficulties; and, although now suffering a slight depression, we can see the seeds of vitality in it, and can confidently prophecy that, with judicious legislation, the Dominion is destined at no distant day to take her place among the foremost manufacturing countries of the world. Some idea of the magnitude to which our manufacturing industries have grown, may be gathered from the census return of 1871 which shows that at that time the amount of capital invested in manufactures in the four Provinces of Quebec, Ontario, New Brunswick, and Nova Scotia was \$77,964,000; the number of hands employed, 187,942; the amount of wages paid yearly, \$40,850,000; and the value of the articles produced, \$221,600,000. There is reason to fear that our manufacturing industries have not prospered so well during the past five years as during the five years anterior to those, and the number of hands employed, amount of wages paid, and value of products to-day would scarcely compare favourably with the figures of 1871. There are many reasons for this stagnation in our manufactures: over production, a general depression in trade throughout the world, over speculation, and, last but not least, a want of protection for our young industries. The Dominion is an infant in manufactures compared to countries like England, Germany, France or the United States; and the infant needs protection and fostering care to guard it against the fully grown and well developed industries of those countries. England's boast is that she is a Free Trade country; but no manufactures were ever more zealously guarded, or more carefully protected in their infancy than those of England; and the Free Trade industries of the England of to-day owe their success—nay, almost their very existence—to the Protected industries of the England of the past.

Take our neighbours across the line 45°, and see what protection has done for them; under a strong protective, almost prohibitory tariff, they have developed their industries until they can "beard the lion in his den," and actually take cottons to Manchester and sell them cheaper than the English manufacturers can. Placed as Canada is "between two fires," as it were, Free Trade England on one side, and the over Protected United States on the other, it needs much care and caution to steer a policy which will enable our manufacturers to compete fairly with either; certainly we shall never be able to do this as long as the United States have only fifteen or twenty per cent. duty to pay on goods exported to Canada, while Canada has fifty or sixty per cent. duty to pay on goods sent to the United States; what our manufacturers want is a FAIR PLAY tariff; let the duties between the United States and Canada be equalized, if they charge us fifty per cent. duty on goods made in Canada and exported to the States, let us charge them fifty per cent. duty on goods made in the United States and exported to Canada. This would at least put us on an equality with the States; they could use our market and we could use theirs on equal terms, and the best and cheapest goods would command the best sale; but, as the case stands at present the manufacturer in the States can always use Canada as a "slaughter" market, when the markets of the States are glutted, well knowing that the Canadian manufacturer cannot retaliate for the American is safely defended by the strong wall of protection raised around him.

There are hundreds of factories in Canada, and thousands of thousands of employees idle to day on account of the Americans having flooded us with their surplus goods, which they are willing to sell for "anything for cash," both to keep up their own market and to break down our manufacturers to make room for their own. Our legislators, should remember that there are over one hundred and eighty thousand persons, earning about forty millions of dollars a year in wages, dependent on their legislation and they should be careful to so protect our manufactures that this large amount of labour, and great employment of capital be retained in the Dominion; or, some fine morning we will awake to the painful consciousness that our young and growing industries have been nipped in the bud, that our mechanics and artisans have "crossed the line," and that Canada has retrograded half a century, and is again entirely dependent on foreign countries for all her manufactures.

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## LEEDS FOUNDRY AND MACHINE WORKS.

GANANOQUE.

The justly popular machine shop which bears the above name has, like many similar establishments on this Continent, arrived at its present size and importance by a natural growth, consequent upon the excellency of work turned out, steadily increasing demand for its work. The proprietor, Mr. E. E. Abbott, is a native of Connecticut, in which State he passed his youth, and learned the trade for which his natural talents and inclination peculiarly fitted him—that of a first-class machinist. In the year 1855 he was engaged to superintend an iron works at Kingston, Ont., and from thence removed to Gananoque in 1858, being employed to establish a machine shop, the want of which was a great inconvenience to the manufactories then located at that place. Mr. Abbott's first shop in Gananoque was in part of the premises known as the "Globe Works," where he so successfully conducted the business—including also a foundry in an adjacent building—that it soon became noted for superior work, and orders for machinery were received from all parts of the Province. In 1861 he became sole proprietor, and devoted his whole attention to the building of machines to order; from which time to the present his course has been a more than ordinarily successful one. Mr. Abbott's reputation as a skilled workman is not surpassed by that of any other machinist in Canada; and, in addition to this, he has the peculiar faculty of being able to adapt machines to special work,—it is to the latter that he is indebted for the position he now occupies; and, in planning new machines to suit particular and exceptional requirements, he has contributed largely to the success of manufacturing enterprises in Gananoque and other parts of Ontario.

In 1871 his business had outgrown his facilities, and, to keep up with the demands made upon him, he erected the large and commodious buildings now known as the "Leeds Foundry and Machine Works." These are situated on the west side of the Gananoque River, near its junction with the St Lawrence, and, with deep water along side, have every convenience for shipping and receiving freight. "The buildings are all substantially built of stone with fire-proof roofs. The machine shop is a building 42 x 98 feet, 3 storeys high; it stands parallel with the river, some distance back. The foundry is 40 x 68 feet, and stands near the water, with a wharf in front. Connecting the machine shop and foundry is a building, 55 feet in length, used as a smith's shop; the three buildings thus enclosing three sides of a square, and the ground enclosed forming a commodious yard. Every department is fitted up with the very best machinery and tools, most of which were made on the premises, and include, in addition to the usual outfit, many devices for the more speedy or more exact manufacturing of mill

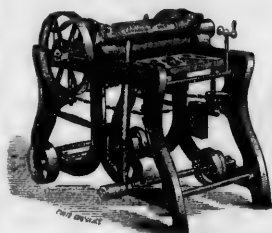
furnishings, steamboat fittings, agricultural implements, and iron and wood-working machines of every description. The planers used in these works are of superior design, having a positive reverse motion invented by Mr. Abbott, which enables the operator to, work up to a line, and in a more circumscribed space than can be done with the ordinary style of planer, thus completing a job at one operation, instead of leaving parts to be finished with hand chisel, as is usually done. And similar points of excellence may be observed in most of the drills, lathes, presses, &c., that are constantly at work; motions utilised, defects overcome, exactness ensured, and perfection of parts obtained. Competent workmen are employed in the pattern rooms and foundry, and, as the whole work is done under one roof, the easy facility of consultation between foremen renders mistakes almost unknown. The power that drives the whole works is derived from a hydraulic canal on the west side of the buildings, that leads from the Gananoque River, giving a constant supply of water which, for all practical purposes, is inexhaustible. And, indeed, no important requisite is lacking, that could in any great degree add to efficiency of the Leeds Works as a first-class machine shop and foundry.

## MONTREAL AS IT WAS AND IS.

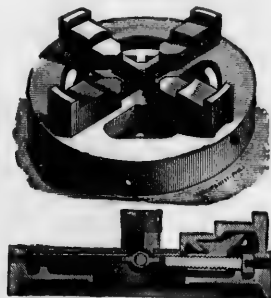
THE history of Montreal dates back to the year 1535, when Jacques Cartier first landed on its shores. At that time an Indian Village existed here, called Hochelaga, and was described by Cartier as follows:—

"It is placed near, and, as it were, joined to a great mountain, very fertile on the top, from which you may see very far. The town is round, encompassed about with timber, with three rampires, one within another, framed like a sharp spire, but laid across above. The middlemost of these is made and built in a direct line, but perpendicular. The rampires are framed and fastened with pieces of timber laid along the ground, very well and cunningly joined after their fashion; this enclosure is in height about two rods; it hath but one gate or entry thereat, which is shut with piles, stakes and bars; over it, and also in many parts of the wall, there be places to run along, and ladders to get up, all full of stones, for the defence of it. There are in the town about fifty houses, each fifty paces long, and fifteen or twenty broad, built all of wood, covered over with the bark of the wood, as broad as any board, and cunningly joined together. Within are many rooms, lodgings and chambers. In the midst of every one there is a great court, in the middle whereof they make their fires. They live in common together, then do the husbands, wives and children, each one, retire to their chambers. They have also in the tops of their houses, certain garrets, wherein they keep their corn to make their bread. The people are given to no

## LEEDS FOUNDRY AND MACHINE WORKS,



GANANOQUE,  
ONTARIO.



E. E. ABBOTT,  
MANUFACTURER OF

*Iron Planers, Engine Lathes, Bolt Cutters, Drilling, Centering, Repeating and Emery*

## GRINDING MACHINES.

**ABBOTT'S PATENT LATHE CHUCKS AND PLANE CHUCKS.**

Power Presses and Steam Fan Blowers,

Dead Stroke, Dress and Press Hammers.

**Circular Saw Mills with improved Set Works.**

Hub and Spoke Machinery, Wood Planers, and other Wood Working Machinery.

**Superior Turned Shafting and Couplings, Pulleys and Hangers,**

*Of the latest and most approved Patterns.*

Water Wheels and Mill Gearing, &c. Heavy or Light Castings,  
IN IRON OR BRASS.

*My Stock of Patterns is large and very complete. Terms liberal and  
Work Guaranteed.*

N. B.—Particular attention given to Perfecting and Building New Machinery for special purposes and Patterns of any description made when desired.



GENERAL VIEW OF THE WORKS OF DAVID ALLAN, ESQ., GUELPH.

#### DAVID ALLAN.

On St. George's day, 1827, the first forest tree was cut down on the site now occupied by the prosperous town of Guelph, in the presence of John Galt, the novelist, who describes the interesting ceremony in the following words:—"A large maple tree was chosen, on which 'taking an axe from one of the woodmen, I struck' the first stroke. To me at least, the moment was impressive, 'and the silence of the woods that echoed to the sound,' was as the sigh of the solemn genius of the wilderness 'departing forever.'" The silence of the woods on that occasion, nearly fifty years ago, as Galt stood axe in hand, contrasts strongly with the steam whistle and immense railway traffic at the present day, passing over the exact spot upon which he then stood, which is now covered by the western abutment of the imposing tubular viaduct of the Grand Trunk Railway. In close proximity, overlooked from the railway bridge, are the well-known Guelph mills and distillery. The original mill, a wooden structure, now wholly removed, was constructed by the Canada Company, and passed into the hands of the late William Allan in 1833. The present buildings are of massive masonry. The propelling forces on the premises are three water

wheels and two steam engines. Four run of stones are driven by water power and four by steam, the mills being fitted up with the newest and most approved machinery for the manufacture of the finest brands of flour for which the mills are justly celebrated, under the brands of "Guelph Mills" and "River Speed." Two substantial tramway bridges connect the mill with the distillery on the opposite bank of the river. The distillery, a stone structure, is of large capacity, the duty on spirits manufactured amounting to over \$200,000 yearly. Adjoining is the rectifying house, four storeys in height, also of stone, recently fitted up with every appliance for the production of the purest quality of spirits. In connection with the distillery there is also a spirit compounding house for the manufacture of gin, ginger wine, and other cordials. Extensive sheds for feeding cattle adjoin the distillery with accommodations for over three hundred head of cattle. The building formerly occupied as a carding mill is now used as a carpenters' and millwrights' shop, and contains two wood-planing machines, lathes for wood and iron, etc. There is also a commodious blacksmiths' shop on the premises. The property embraces an area of nine acres, and the buildings are all of the most substantial character situated in a central part of the town.

**DAVID ALLAN,**  
**MILLER, DISTILLER,**  
***RECTIFIER & COMPOUNDER,***



Manufacturer of the following Celebrated Articles :

**MALT,** **PURE SPIRITS,**  
**OLD RYE,** **ALCOHOL,**  
**TODDY,** **OLD TOM GIN,**  
**COMMON WHISKEY, GINGER WINE,**  
**ORANGE BITTERS, &c.**

Also, Manufacturer of the well-known Brands of

**"GUELPH MILLS"**

**XXX PASTRY FLOUR**

AND

**"RIVER SPEED" BAKERS' FLOUR,**

Made only from the very choicest samples of Wheat.

**GUELPH, ONT.**

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### ALBION HOTEL.

The Albion Hotel, conducted by Messrs. Decker, Stearns & Murray, is one of the largest and best managed hotels in Montreal. It is situated at the corner of McGill and St. Paul streets, Montreal, and, from its central location, is most favorably placed for the accommodation of commercial men, large numbers of whom make it their head-quarters during their stay in the city. The hotel can accommodate about 500 guests, and is not only well situated for the purposes of business men, but is a very advantageous site for travellers, as the gallery off the ladies' parlor commands a magnificent view of the St. Lawrence, embracing some of the most attractive points of that picturesque river in the vicinity of Montreal, including a fine sight of the Victoria Bridge. The table is always well and bountifully furnished; and the hungriest man that ever was born can always get all he wants of the choicest and most delicate viands. It has often been said of Montreal that it has no good hotels; and tourists have grumbled a great deal about the accommodation, fire and attendance, they have received at what are called in the ordinary guide books, "first-class" hotels; but we can safely recommend our readers to try the Albion, where prices are nearly one-half of the "first class hotels,"—and, if our readers are not satisfied with the treatment they receive, they are harder to please than we think they are. The hotel has been established over twenty years, and could with justice adopt as its motto "second to none."

other exercise, but only to husbandry and fishing for their existence."

Having seen all that he deemed worthy of notice in the village, Cartier expressed a wish to ascend the mountain, and was conducted thither by the natives. From its summit he discovered an immense extent of fine country, interspersed with rivers, woods, hills and islands, the sight of which filled him with feelings of joy and gratification. In honor of his king he gave to the elevation the name, which, with small change, has since extended to the city—"Mount Royal."

### MONTREAL

Is built on an island, formed by the partial confluence of the Ottawa and the St. Lawrence at its western extremity, and by the perfect confluence of these rivers at its eastern boundary, after passing along its northern and southern shores. The island is about 30 miles in length, and at the widest part about 10 miles in breadth. With the exception of the mountain, which rises to the height of about 550 feet, it is nearly level, and forms one of the most fertile districts of the Province. The climate is particularly favorable for the growth of nearly every kind of grain, fruit and vegetables. The French first began to settle here in 1542, and exactly one century after, the spot destined for the City was consecrated with

due solemnities, commended to the "Queen of the Angels," and called *Villa Marie*, a name which it retained for a long period. In 1760, it was taken by the English. At this time it was a well-peopled town of an oblong form, surrounded by a wall flanked with eleven redoubts—a ditch about eight feet deep, and a proportionate width, but dry, and a fort and citadel, the batteries of which commanded the streets of the town from one end to the other. The town was at this time divided into upper and lower town, the upper town being the level of the present Court House. In the lower town the merchants and men of business generally resided, and here were situated the Royal Magazines, the Armory, the Nunnery, Hospitals, &c. In the upper town were the principal buildings, such as the palace of the Governor, the houses of the chief officers, the Convent of the Recollets, the Jesuit Church and Seminary, the School, and the Parish Church. The houses were solidly constructed in that semi-monastic style peculiar to Rouen, Caen, and other towns in Normandy. "The Parish Church was large and built of stone. The house of the Jesuits was magnificent, and their Church well built, though their Seminary was small. The palace of the Governor-General was a large and fine building, and the neighborhood of the city contained many elegant villas." The following is a description of the city written about the year 1805: "The streets are airy and regularly disposed, one of them (St. Paul) extending nearly parallel to the river, through the entire length of the place; they are of sufficient width, being intersected at right angles by several smaller streets, which descend from west to east. The upper street (Notre Dame) is divided into two by the Roman Catholic church." The habitations of the principal merchants are neat and commodious, and their store-houses are spacious, and secured against risk by fires, being covered with sheet-iron or tin. Without this precaution, as the roofs of the dwellings in Canada are usually formed of boards, and sometimes with the external addition of shingles, they would in summer become highly combustible, and liable to ignition from a small spark of fire. The houses which are protected in the former manner, will last without need of repair, for a considerable number of years. The town was enclosed by a stone fortification, which, having fallen into ruins, is now in a great measure levelled or removed. A natural wharf, very near to the town, is formed by the depth of the stream, and the sudden declivity of the bank. The environs of the city are composed of four streets, extending in different directions, that of Quebec (St. Mary's) on the north, St. Lawrence towards the west, and Recollet and St. Antoine towards the south. In the latter is placed the college, which has been lately built. These, together with the town, contain about 12,000 inhabitants."

At this time vessels of more than three hundred tons could not ascend to Montreal, and its foreign trade was carried on by small brigs and barges. In the year 1809

# ALBION HOTEL,

McGill and St. Paul Streets,

MONTREAL.



This large and popular Hotel is centrally located on McGill Street ; it is fitted up in the best style, and will compare with any house in the city. Merchants visiting the city will find the

## ALBION HOTEL

Conveniently situated for their business.

**CHARGES MODERATE.**

DECKER, STEARNS & MURRAY,  
PROPRIETORS.



## AMES, HOLDEN & CO.

Messrs. Ames, Holden & Co. are the largest boot and shoe manufacturers in Montreal, employing about 350 hands, and occupying the large five-storey brick building at the corner of Craig and St. François Xavier streets, Montreal, which has a frontage of 125 feet on Craig streets, and extends back 100 feet to Fortification lane. The basement is used as the shipping department. On the first floor is the office, salesroom and packing room. The second floor is used as a cutting and fitting room. The three upper flats are used for bottoming and other branches of the manufacture, and are furnished with the best and most improved machinery, a forty-five horse-power engine being used to supply the motive power. Messrs Ames, Holden & Co. were established in 1855, and their trade extends over the whole Dominion.

the Hon. John Molson fitted out at Montreal, the first steamer that ever ploughed the waters of the St. Lawrence. (This was the second steamer built on this continent; Fulton's little steamer, which navigated the Hudson river, being the first.) On the 3rd of November the little craft got up steam, and made a voyage to Quebec, where the whole population crowded to the wharf to have a look at the phenomenon. Its arrival there was chronicled as follows by the *Quebec Mercury*, "On Saturday morning at eight o'clock, arrived here from Montreal, being her first trip, the steamboat *Accommodation*, with ten passengers. This is the first vessel of the kind that ever appeared in this harbor. She is continually crowded with visitants. She left Montreal on Wednesday, at two o'clock, so that her passage was sixty-six hours: thirty of which she was at anchor. She arrived at Three Rivers in twenty-four hours. She has at present berths for twenty passengers, which next year will be considerably augmented. *No wind or tide can stop her.* She has 75 feet keel, and 85 feet on deck. The price for a passage up is nine dollars, and eight down, the vessel supplying the provisions. The great advantage attending a vessel so constructed is, that a passage may be calculated on to a degree of certainty, in point of time, which cannot be the case with any vessel propelled by sail only. The steamboat receives her impulse from an open, double-spoked, perpendicular wheel, on each side, without any circular band or rim. To the end of each double spoke is fixed a square board which enters the water, and by the rotatory motion of the wheels acts like a paddle. The wheels are put and kept in motion by steam, operating within the vessel. A mast is to be fixed in her, for the purpose of using a sail when the wind is favorable, which will occasionally accelerate her headway."

In 1832, the cholera raged in Montreal with great violence, carrying off 1843 inhabitants in a population of little more than 30,000. In April, 1849, a political mob burnt the Parliament buildings, and the seat of Govern-

ment was in consequence transferred to Quebec, subsequently to Toronto, and finally to Ottawa. In July, 1852, a destructive fire laid waste a large portion of the city, burning 110 houses and destroying property valued at \$1,363,264. Notwithstanding these reverses, the city rapidly recovered, and to-day numbers a population of nearly 150,000 people. Years of industry, intelligence, enterprise and labor, have produced a mighty contrast to the city as before described. Now, ocean vessels of 4000 tons, the magnificent floating palaces of the Richelieu Company, and ships of from 700 to 4000 tons, from all parts of the world, lay alongside the wharves of the harbor, which are not equalled on this continent in point of extent, accommodation, approach and cleanliness. Montreal has now over 200 miles of streets and lanes; some of the streets are narrow, but the majority will compare favorably with any on the continent. Nowhere can finer or more solid public buildings be found. The buildings for commercial and other purposes would dignify any city. There are none in the United States which present finer specimens of street architecture than are found—not isolated here and there, but in long blocks and throughout the whole city, and while we view with pride the rapid progress made during the last few years, we remember that appearances point to a still greater advancement in the future. Montreal possesses advantages which no other Canadian city can boast of. In its situation at the confluence of the two greatest rivers, the St. Lawrence and the Ottawa, opposite the great natural highway of the Hudson valley; at the point where the St. Lawrence ceases to be navigable for Ocean ships, and where that great river, for the last time in its course to the sea, affords a gigantic water-power; at the meeting point of the two races that divide Canada, and in the centre of a fertile plain nearly as large as all England; in these we recognize a guarantee for the future greatness of Montreal, not based on the frail tenure of human legislation, but in the unchanging decrees of the Eternal, as stamped on the World He has made. We know from the study of these indications, that were Canada to be again a wilderness, and were a second Cartier to explore it, he might wander over all the great regions of Canada and the West, and returning to our mountain ridge, call it again Mount Royal, and say that to this point the wealth and trade of Canada must turn.

The street bustle is sufficient, and the business activity enough to convince any one that Montreal is really and healthily prosperous. After all the building improvements of the few years, which have transferred narrow streets and dingy houses into splendid avenues of palatial shop fronts; which have covered the extensive fields with princely residences, and others with hundreds of factories, and tens of hundreds of comfortable dwellings, the rage for building seems as great as ever.

## THE PORT.

*The Ship Channel*—As already remarked, Montreal is the point at which Ocean navigation terminates and in-

AMES,

HOLDEN

& CO.,

*MANUFACTURERS OF,*

AND WHOLESALE DEALERS IN,

**BOOTS AND SHOES,**

Nos. 596, 598, 600, 602 and 604

**CRAIG STREET,**

**MONTREAL.**



### C. BOURQUE,

Manufacturer and dealer in all kinds of brushes, established in 1868. The brushes manufactured by Mr. C. Bourque are of a superior quality, and are sold all over the Dominion, and were awarded the first prize at the Agricultural and Industrial Exhibition, 1873, at Montreal.

land navigation commences. Prior to 1851, only vessels of light draught could pass through Lake St. Peter and come up to the wharves; but an elapse of twenty-five years shows a great change, for vessels drawing 22 to 23 feet water can now pass down from Montreal to the sea. The following are some noticeable incidents:

The work of improving the navigation from Montreal to Quebec by dredging a channel through Lake St. Peter, was commenced by the Harbor Commissioners of Montreal in June, 1851; and on the 3rd of November of the same year, the ship *City of Manchester* passed down, drawing 14 feet of water, when the depth on the flats was 12 feet,—showing an increase of 2 feet, the dredged channel being then only 75 feet wide.

On the 16th October, 1859, the ship *Pride of Canada*, loaded down to 18 feet 8 inches, was taken through, while there was a depth of 11 feet 8 inches, on the flats, showing an increase of 7 feet, the width of the channel having been increased to 300 feet.

On the 16th of November, 1865, the ship *Ocean* was taken from Sorel to Quebec, drawing 18 feet 8 inches, there being at that time 10 feet 6 inches on the flats; and on the 1st December following a test trip was made from Montreal to Sorel (in the absence of a suitable vessel) by lashing spars alongside a steamer to the required depth of twenty feet, thus passing through the lake when there was a depth of 11 feet, (the average point of low water) on the flats. The experiment was deemed satisfactory,—demonstrating that the result of all the labor since 1851 was an increased depth of 9 feet, and that at low water there is a channel 20 feet deep from Montreal to the sea. A further deepening of the channel has been determined upon, so as to give a depth of 22 feet (and ultimately 24 feet or more) at low water, to admit of the largest-sized steamships coming up to the harbor without lighterage.

### THE HARBOR.

The existing wharfage accommodation measures 16-140 lineal feet, or more than three miles. There are 11,690 feet of wharf-room in 20 feet depth of water, and 4,450 feet in 10 feet depth of water. In addition there are now under contract, part of which is completed, 17,900 feet of new wharf at different points from Mill street to Hochelaga, of which more than one half is in 24 feet depth of water.

### THE WHARVES.

The wharves are surmounted by a massive cut-stone wall, along the height of which is a pleasant promenade

and wide street, affording a fine view of the river and its shipping. There are numerous inclined planes from the wharves by which carriages ascend to the street above; and the whole, for appearance, commodiousness and cleanliness, is unexcelled by any port on the continent.

### STEAMSHIPS.

During the past year there were 62 steamships plying regularly between Montreal and ports in the United Kingdom, (besides transient steamers)—this port being only second to New York in point of importance.

### THE ALLAN LINE OF STEAMSHIPS.

The story of the growth of the Allan Company is to a great extent identical with the history of the rise and progress of the Dominion of Canada. Its present position, in the first rank of Steamships lines, is an eloquent testimony, not only to the resources of Canada, but to the indomitable energy with which the fortunes of the Dominion have, in the face of all sorts of difficulties, been built up, and with which they are now being guarded and encouraged. The present name, the "Montreal Ocean Steamship Company," was given to the firm in 1856. Prior to that time it was known, and is still more familiarly known, as the Allan Line. It has a long and honorable pedigree, for the partners now coming in are of the third generation. More than half a century ago Alexander Allan, of Glasgow, possessed a fleet of sailing ships trading between the Clyde and St. Lawrence, Montreal being then, as it is now, the Canadian head-quarters of the house. It will thus be seen that the Allan connexion with Canada is of a very old date, and that the Company which is now identified with the vigorous maturity of Canada's commerce, was, so to speak, present at its birth. For many years the trade was carried on by Mr. Alexander Allan, who was succeeded by his sons, Mr. James Allan, Mr. Bryce Allan, and Mr. Alexander Allan, jr., who continued to run the sailing fleet from Glasgow to Montreal, and likewise established a service from Liverpool to Montreal. In the meantime Mr. Hugh Allan [now Sir Hugh Allan], who came out to Montreal at an early age, became a member of the firm, with Mr. Andrew Allan, constituting the five Allan brothers in whose name the operations of the Company have been conducted. Within the last few years some younger members of the Allan family have been introduced. As an instance of the vast development of the Canadian trade, it may be stated that, up to the year 1840, some seven or eight sailing ships, of 300 to 400 tons, were sufficient to conduct all the trade that then existed. Now, the Allan Company alone possess 29 steamers and 15 sailingships, with a gross tonnage of over 60,000 tons, the bulk of which is engaged in the Dominion trade. The gross tonnage cleared inwards and outwards at the ports of the Dominion, amounted last year to over 13 million tons. From

# ANDREW F. ANDREWS,

Manufacturer of all kinds of

## BRUSHES.

All orders punctually attended to.

**KING STREET,**

**CARLTON, ST. JOHN, N.B.**

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## C. BOURQUE,

**BRUSH MANUFACTURER,**

*And Dealer in all kinds of*

## BRUSHES.

All orders promptly filled. Send for Price List.

**MONTREAL, P. Q.**

### WM. BARBER & BROTHERS.

The firm of William Barber & Brothers is one of the oldest establishments for paper making in the Dominion, having commenced this branch of business in 1854. The paper mills are situated on the Credit River, on the north-east limit of the village of Georgetown, Ontario, and occupy about two acres of ground, giving employment to about sixty hands and turning out about two and a half tons of paper a day. There are two mills, both built of stone, one three storeys high, the other two storeys, and the motive power is supplied by a fifty horse power steam engine, and four water wheels aggregating a force of one hundred and twenty horse power. The firm have also a wood pulp mill and, a straw pulp mill, and these articles enter largely into their manufacture of the commoner kinds of paper, such as manillas, tea, &c. The firm supplies almost all the paper used by the Dominion and Ontario governments for printing, and manufactures every kind of paper, except writing paper. They have also a large envelope factory in the village of Georgetown, where all varieties of styles, sizes and colors are turned out.

the year 1840 to 1850 the sailing fleet of the Allan's was increased according to the requirements of the Canadian trade, which were attentively watched by the principals, two of whom had a long practical experience of it, having commanded their own trading ships, and being, therefore, perfectly acquainted with the growing necessities of the commerce. In this respect, the practical acquaintance with life at sea, the Allan Company are particularly fortunate, for it enables them to discern things which should be done in regard to ships, which would not be obvious to persons devoid of practical experience. One singular result of it should be noted, namely, that the majority of the captains in the service have grown up with it, and been, so to speak, educated in the Company.

About the year 1850, the various Provinces now forming the Canadian Dominion, awoke from a long lethargy, and, inspired no doubt by what was passing in the United States, determined to enter with determination into the struggle for recognition as a power in the world. The leading men of Canada began to turn their minds to the development of the country by Railroads, Canals, &c., and the establishment of regular and rapid communication with the mother country. The enormous stream of emigration which was flowing towards the United States attracted their attention and in some degree naturally aroused their envy. They could not quietly sit down without an attempt to find out whether there were not hundreds and thousands of Englishmen, Scotchmen, and Irishmen, who, while they desired to emigrate, yet did not relish the notion of deserting the old flag.

One of the results of this awakening, was, that negotiations were entered into by the Allan Company for the

establishment of a line of Steamships to accommodate the growing trade between Canada and Great Britain, and to carry the mails.

The English branches of the firm at this time, were Messrs. James and Alexander Allan, of Glasgow, and Mr. Bryce Allan of Liverpool, possessing a sailing fleet of 16 vessels.

The sailing traditions of the Company, although they are fast dying out, are still represented by the considerable fleet before mentioned. In the year 1853, two fine iron steamships, upon the screw principle, were added to the Allan fleet. These were the *Canadian* and the *Indian*, each of about 1600 tons burthen and about 250 horse-power. They were intended to run regularly between the Mersey and the St Lawrence, but, after a short time, the imperative demands of the Crimean war, which absorbed all the steam fleet of Liverpool, led to their being employed in the transport of troops, of which they conveyed a large number to the Crimea—the British from Portsmouth, and the French from Marseilles. In this and similar services they were engaged during the continuance of the Crimean war, and many odd reminiscences, and queer and laughable adventures of which, are still preserved as traditions among those of the Company's employees who were engaged in them.

In the beginning of the year 1857, by which time two other vessels—the *North American* and the *Anglo Saxon*, had been added to the steam fleet, the Allan Company contracted with the Canadian Government for a fortnightly service of mail steamers between Liverpool and Quebec in the summer and Liverpool and Portland, in the winter, the navigation of the St Lawrence being impossible in the winter months. The Company has ever since carried the mails under contract with the Canadian Government.

The undoubtedly shortest sea route between England and America is that of the Allan line, the distance from Mowille to Quebec being 2,440 sailing miles, while that from Queenstown to New York is 2,777 miles. This advantage of the short sea route gives an advantage also in point of time taken in reaching the Western States of America, over the Grand Trunk and other Canadian railways. The large number of Western passengers taking this route must be held to account for the fables about emigrants leaving Canada for the United States. In these calculations the passengers to the Western States are put down as original emigrants to Canada, whereas they have simply chosen to travel by the Canadian route to the United States.

The vast increase in the Canadian trade, and the great development of emigration to Canada, compelled Messrs. Allan, in the year 1859, to add four steamers to their line, making a fleet of eight steamships, with which the weekly mail service was conducted. From that period up to the present time, successive additions have been made. The following are now on the line:—The *Corinthian*, *Manitoba*, *Caspian*, *Moravian*, *Hibernian*, *Peruvian*, *Nestorian*, *Austrian*, *Prussian*, *Scandinavian*, *Sar-*

WM. BARBER & BROS.,  
**Paper Makers,**  
 GEORGETOWN, ONT.

Manufacturers of Book, News and Colored Printing  
 Papers. Special sizes made on short notice.  
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**GEORGETOWN ENVELOPE FACTORY,**  
 GEORGETOWN, ONT.

Makes every variety and size of

**ENVELOPE,**

Sold by the Stationery trade. Samples sent on  
 application.

FRED. WHITE,  
 MANAGER.

#### W. F. BARTLEY & CO.

Messrs. W. F. Bartley & Co., proprietors of the St. Lawrence Engine Works, were established in 1849, and their factory has steadily *grown* in public favor until it now furnishes employment to *some* two hundred and fifty men. The factory is situated at Nos. 17 to 29 Mill street, Montreal, near the foot of McGill street, and covers over an acre of ground. The machine shop is one storey high, built of brick, and has a frontage of ninety feet by a depth of forty. The moulding shop is two storeys high, eighty feet by forty, also built of brick. The boiler shop is ninety feet by forty, the blacksmiths' shop sixty feet by thirty, and the pattern shop forty feet by twenty, all built of brick. Messrs. Bartley turn out some of the best work in the Dominion, and have furnished several engines for the dredges of the Harbor Commissioners, Montreal, and a large number of boilers for the Montreal water works.

*mation, Polynesian, Nova Scotian, Canadian, Phœnician, Welshman, Acadian, Newfoundland, Circassian and the Slavonian, which is the largest of the fleet, being of 4,000 tons, and 675 horse-power. The steamers are not classed at Lloyds, nor with the Liverpool underwriters, the owners having their own standards of strength, &c., which, however, are much in excess of the requirements of Lloyd's.*

#### CITY WATER WORKS.

The city is supplied with water, brought from the River St. Lawrence, at a point beyond the Lachine Rapids, to the wheelhouse, by an aqueduct. The pumping machinery consists of two breast-wheels, capable of raising 5,000,000 gallons every twenty-four hours, and a powerful turbine wheel, calculated to raise nearly as much as the breast-wheels—two auxiliary steam-engines having been added, with a pumping power of 3,750,000 gallons each, in twenty-four hours. These force the water up into reservoirs, situated on McTavish Street at a height of two hundred feet above the level of low water in the river, having a capacity of about 20,000,000 gallons. The enlargement of these is in progress, by which the water storage will be increased to over 35,000,000 gallons. There is also a reservoir at Coteau Barron, about 130 feet above the low-water level of the river, which contains 4,000,000 gallons. As a view of the increase of population, it will, at no distant day, be necessary to make further additions to the reservoirs; and doubtless any new project of that kind will be on a much larger scale than has hitherto been contemplated. The water is distributed to all parts of the city through nearly 120 miles of pipes. Besides the public fire hydrants, several have been erected by private indivi-

duals, making the whole number 642. Water service is supplied to 16,035 dwellings having 92,340 water tenants.

#### MUNICIPAL TELEGRAPH.

The Fire, Water and Police Departments of the City Government are thoroughly connected by Kennard & Co.'s Fire Alarms and Police Telegraph, which was brought into operation on the 19th January, 1863. The Central Police Station is thus in constant communication with the other stations throughout the city, and the Chief could instantly concentrate his forces in case of emergency. By the same agency the Superintendent of the Water Works can communicate with the attendants at the wheel-house, workshops, and reservoirs.

For facilitating the movements of the Fire Department, Montreal is divided into three districts. There are signalboxes placed throughout the city, at comparatively short distances apart; an alarm [giving the number of the station] is sounded on a church-bell, in each district, on a gong in every Fire and Police Station throughout the city, generally within a minute from the time when the intelligence was first communicated. The Fire Brigade company, therefore, go almost direct to the place where a fire has occurred. The 642 fire-hydrants are located at from 300 to 600 yards apart, each capable of supplying two streams of water with the force of jets from steam fire-engines. Ten years' experience with the fire-alarm telegraph has given a sense of security to the public, that the occurrence of such conflagrations as have in times past devastated large portions of the city is rendered almost impossible. The

Central Fire Station is situated at the corner of Craig and Chenneville streets. It is three storeys in height, with a cut-stone front on the former, and 100 feet of brick and stone dressing on the latter street. Over the doors and windows are bold projecting mouldings, and a massive cornice runs along the eaves, from which rises in the middle a pediment which is decorated with the city arms and the words "Central Fire Station," and surmounted with a flag staff. The ground floor contains four compartments, the middle one being divided by sliding doors. In the foremost of these divisions are the reels, hook and ladder waggon, steam engine, &c., all convenient for immediate access to the street. Down one side of the back division stretches a hose washing trough, fifty-one feet long, at one end of which is a hydrant for testing the strength of the hose, at the other end of the trough is a tower, fifty feet high, in which the hose is hung to dry after being washed and tested, near this tower are stalls for the horses; on the same floor is a workshop, and a room for the watchman to sit during the night. The whole interior arrangements are of the most comfortable and convenient character.

#### DRIVES.

The Canadian carriage is kept with scrupulous neatness,

# **ST. LAWRENCE ENGINE WORKS,**

17 to 29 Mill Street, Canal Basin No. 2,

**MONTREAL, P.Q.**

## **W. P. BARTLEY & CO.,**

**PROPRIETORS,**

### ***Engineers, Founders, &c., &c.***

#### **HIGH PRESSURE ENGINES,**

Superior Horizontal Engines of all sizes Always on hand, or made to order on short notice.

#### **STEAM BOILERS,**

Superior Machine-Rivetted Boilers, of all sizes, always on hand or made to order on short notice.

Heavy and Light Forgings, Heavy and Light Castings in Iron or Brass.

#### **WATER WHEELS.**

Manufacturers of all kinds of superior Water Wheels, The Bryant, Dominion and other superior makes.

#### **DREDGE MACHINERY.**

Manufacturers of the most improved Dredging Machinery ; also, Steam Land Excavators,  
Pile Drivers, &c., &c.

#### ***SAW AND GRIST MILL MACHINERY.***

Saw Frames, Edgers, Shingle Mills, Shafting, with Patent Internal Clamp Coupling, Hangers and Pulleys &c., &c.

#### **Steamboats.**

Improved Compound Beam and Screw Propellers. Engines of all sizes made to order.

#### **HOISTING MACHINES.**

Otis Bros., of New York, celebrated Safety Hoisting Machines, and other first-class Machines.

#### **PUMPING APPARATUS,**

For Cities, Towns, Public Institutions, made to order.

#### **ARCHITECTS, BUILDERS AND PROPRIETORS.**

Girders, Iron Rods, Columns, Railings, Window Sills, Stairplates, &c., &c.

**Send for Circulars.**



### BEECHER BROTHERS.

This enterprising firm commenced the manufacture of hot air furnaces in 1863. The factory and office are situated at No. 241 Dundas street, London, Ontario. The building is of brick, two storeys in height, 20 x 60 feet. The first floor is used as offices and store room, the second floor is used as work shop, stock room, &c. Messrs. Beecher Brothers make hot air furnaces a specialty. From ten to fifteen men find employment in this establishment.

the drivers are your willing and obliging servants, knowing every inch of the routes by which they convey you, and the charges, unlike American coaching fares, do not spoil the fairest prospects by threatening total ruin to your finances.

### AROUND THE MOUNTAIN.

The drive around the mountain is certainly one which it would be difficult, for natural beauty, to surpass. On a clear, bright day, the view from any point of the drive is magnificent; several hundred feet below is spread out a gorgeous panorama of ever varying beauty, affording commanding and attractive views of the Canadian metropolis, and the great river of the North. Well stocked and highly cultivated farms attest the prosperity of the husbandman; comfortable homesteads nestling amid a luxurious growth, dot the landscape; here and there broad belts of forests shade the view and form a fringe-work to the picture; looming up, faintly shadowed in the distance, the far-off hills of Vermont rear their summit, while, like a silver thread winding through the valley, the majestic St. Lawrence flows onward to the sea, spanned at this point by the Victoria Bridge, one of the greatest modern specimens of engineering skill. Handsome private dwellings, faced with gardens laid out with great taste, line the roadway, and add to the beauty of the scene.

### TO LACHINE.

The drive to Lachine [9 miles] is one of great interest. Lachine is the summer residence of many Montrealers, and has become famous by its annual regattas. It is noted as being the scene of a terrible massacre of the whites by the Iroquois Indians, in the year 1689, when over two hundred persons were burned alive. Caughnawaga, an Indian Village, is situated immediately opposite, and is connected by a steam ferry.

### TO LONGUE POINTE

Another favorite drive is in an opposite direction to the last, to Longue Pointe, passing through the Village of Hochelaga. The river scenery in this direction is very fine, and of quite a different character from that west of the City. The villages of Longueuil, Boucherville,

and Varennes may be seen on the opposite side of the river.

### MOUNT ROYAL CEMETERY.

Is situated on the east side of the mountain, about two miles from the City. The approach to it is by a winding carriage-way, passing through which may be seen many of the wild beauties of nature, and from several points on the road there are beautiful views to be had in every direction. The road, which is kept in the finest condition, is planted on each side with trees. The gateway at the entrance is a beautiful structure of cut stone, with iron gates.

From the main entrance, avenues diverge towards different parts of the Cemetery; that on the right leading to the winter vaults. In passing through the grounds the visitor sees many little nooks, under the overhanging foliage of trees, which grow in all their natural wildness and whose deep shadows spread a refreshing coolness around, and invite him to rest on the garden seats which are placed in different parts. On the highest summit in the Cemetery are built the vaults of the Molson family, which are said to be the most extensive and costly private vaults on the continent. Looking from this eminence the eye ranges over a most enchanting picture of rural scenery: in the distance rises a part of Mount Royal, clothed with its primeval forests, while immediately below lies the most finished and beautiful portion of the Cemetery, with its costly granite monuments, or more humble marble or stone tablets gleaming among the foliage and flowers.

### THE LACHINE RAPIDS.

One of the most delightful, as well as most exciting experiences of the visitor to Montreal, is the descent of the Lachine Rapids. A train leaves Bonaventure station every morning at 7 o'clock for Lachine, [9 miles] where a staunch steamer is in readiness, on which passengers may embark and return to the city; shooting the rapids, and passing under Victoria bridge on the way. This little trip should on no account be omitted from the tourist's programme. The time consumed is but little more than two hours, but the sensations of those two hours, are such as will not be forgotten during a lifetime.

The following description of the descent of the rapids, taken from an American newspaper, will be found interesting:

"Here a boat comes off from the village [the Indian village of Caughnawaga] and brings an Indian. He is a fine looking man, apparently about 60 years of age; he came on board to pilot the boat over the Lachine, which is the last but most dangerous of the rapids. As the boat moves onward to the rapids, all the passengers are anxious to get a good position in order to have a good view of the heaving, breaking, and laughing waters. As we near the rapids, we appear to be running upon a small grass crowned rocky island. Indeed the bow of the boat is so near that it appears to be impossible to clear it, we look

# TUBULAR POT HOT-AIR FURNACES.

## BEECHER BROTHERS,

Sole Manufacturers and Wholesale Dealers for the Dominion.

We also Manufacture the following named

# FURNACES,

In different sizes :



### LIVELY TIMES FURNACES,

	Nos. 14,	15,	16,	18.
Height of Furnaces,.....	5 ft. 1 in.	5 ft. 1 in.	5 ft. 6 in.	5 ft. 6 in.
Diameter of Furnaces,.....	2 ft. 10 in.	3 ft. 2 in.	3 ft. 8 in.	4 ft. 3 in.
Diameter of Grate of Furnaces, 14 in.	15 in.	18 in.	20 in.	

### CONE FURNACES,

	Nos. 1,	2,	3,	4.
Height of Furnaces,.....	5 ft.	5 ft.	5 ft.	5 ft.
Diameter of Furnaces,.....	2 ft. 10 in.	3 ft. 2 in.	3 ft. 8 in.	4 ft. 3 in.
Diameter of Grate of Furnaces, 12 in.	14 in.	18 in.	20 in.	

### DOME FURNACES,

	Nos. 40,	50,	60,	70.
Height of Furnaces,.....	5 ft. 1 in.	5 ft. 1 in.	5 ft. 6 in.	5 ft. 6 in.
Diameter of Furnaces,.....	2 ft. 10 in.	3 ft. 2 in.	3 ft. 8 in.	4 ft. 3 in.
Diameter of Grate of Furnaces, 14 in.	15 in.	18 in.	20 in.	

### Self Feed, Soft Coal Furnaces,

	Nos. 2,	3,	4.
Height of Furnaces,.....	5 ft. 1 in.	5 ft. 6 in.	5 ft. 6 in.
Diameter of Furnaces,.....	3 ft. 12 in.	3 ft. 8 in.	4 ft. 3 in.
Diameter of Grate of Furnaces,.....	15 in.	18 in.	20 in.

We also Manufacture two sizes of

## WOOD FURNACES,

Nos. 2 and 3.

The diameter of the above on all sizes, indicates the outside Drums. The base is about six inches addition in width.

BEECHER BROTHERS,

LONDON, ONTARIO.



### W. BELL & COS'. ORGAN FACTORY.

This building is situated on East Market square and Macdonnel street, Guelph, Ont., and is 100 by 106 feet. The fronts on both streets are of beautiful cut-stone. The building has three storeys, besides a basement which extends under the whole factory and in which the engine, boiler, &c., are placed. Every labor-saving machine that can be profitably used in the business is to be found in this factory, including saws, lathes, and planers of every description, jointers, carving machine, etc., besides many machines peculiar to the manufacture of the different articles used in the manufacture of organs.

The business was established in 1865, and has gradually increased till it has become the leading organ factory in the Dominion. The present capacity of the factory is fully thirty organs per week. The employees generally number over 100. The firm have agents in every important town in Canada, and have quite an extensive business in Britain where their instruments have a very high reputation.

As to the quality of their instruments, we will merely say that, besides getting all, or nearly all, the first prizes at every provincial exhibition for Ontario, from 1868 to 1874, when prizes were discontinued, they received the only diploma given during nine years, and the only medal ever awarded to any organ manufacturer at a Provincial Exhibition. These Exhibitions were open to the world, and several leading American firms have competed against them and been unsuccessful.

In the construction of their instruments they use only thoroughly seasoned lumber, and the best material of every description. Their keys are veneered with the best ivory, and have ivory fronts and bushed mortices, thus making an elegant key-board and a noiseless action. In all the other details of tone, durability, and excellence of style, they mean to pay the same attention as heretofore, in order to have their instruments continue the best in the market.

to see if the pilot is at the helm. Yes, there he stands, the Captain at his post in front of the wheel-house, and the Indian pilot, with three other strong men at the wheel; and as we look at the calm countenance of the Indian, and see that his bright eye does not so much as wink, but is fixed steadily upon his beacon, whatever it may be and that the wheelmen are fully under his control, we feel that, with his skill, care, and knowledge of the way, we may banish fear from our thoughts. He guides the boat among the Islands and rocks, over the rapids and through the intricate channels, as easily as a skillful horseman reins a high-spirited charger.

As quick as thought the boat glides away from these rocks, which it appears impossible to avoid, but the pilot apparently is insensible to fear, though not to the responsibility that rests upon him. He is aware, and all are aware, that one false move and all is lost: for the current

is so swift, the seas run so high, and the boat is driven so rapidly, that one touch upon a rock would shiver her to atoms. Although the passage of the rapids appears to be so dangerous, a sense of pleasure and excitement takes the place of fear."

### THE VICTORIA BRIDGE.

The Victoria Bridge, (built under the superintendence of the celebrated Robert Stephenson) the longest and largest bridge in the world, is that known as the tubular or beam bridge, and consists of a series of iron tubes resting on 24 stone piers, with a distance between each pier of 242 feet, except the centre opening, which is 330 feet in length, its total length between the abutments is 6,600 feet, or a mile and a quarter. The bridge is approached by massive embankments, the one on the Montreal side being 1,200 feet, and that on the South shore 800 feet in length, which together, including the abutments, make the total length of the bridge, 9084 feet, or nearly a mile and three quarters.

The cost of this gigantic structure was \$6,300,000. In its erection 250,000 tons of stone, and 8,000 tons of iron have been used.

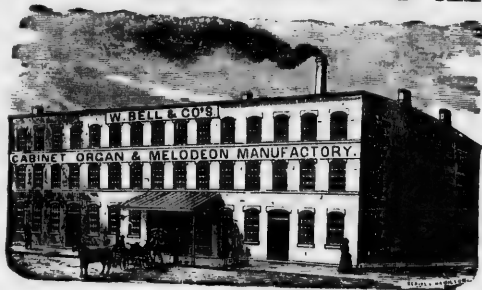
The following are the dimensions of the tube through which the trains pass, viz., in the middle span, 22 feet high, 16 feet wide; at the extreme end, 19 feet high, 116 feet wide. The height above summer water level in the centre opening is 60 feet, descending to either end at the rate of one in 130. The foundation stone was laid on the 22nd July, 1854, and the bridge was completed in 1860. It is used only for railway transit. No train is allowed to enter the bridge without a written permit from the proper officer, thus insuring exemption from collision or accident; the passage occupies about six minutes, though seeming much longer to the passenger, as it is somewhat cheerless. The river beneath the bridge has a swift current and the piers are calculated to withstand immense pressure from descending masses of ice.

### NELSON'S MONUMENT.

This monument, erected to the memory of the hero of Trafalgar, stands in Jacques Cartier square. The foundation stone was laid on the 17th August, 1808. The monument is built of limestone, and the ornaments are of a composition invented by Code and Seely of London, Eng., and were executed by them. The base is square, six and a half feet broad on each side, and about 10 feet high. From the top of this a circular shaft or column rises 50 feet in height, and 5 feet in diameter. It is of the Doric order, and finished with mouldings. On the top of the pillar is a square tablet, the whole surmounted with a statue of Nelson eight feet in height. The likeness is well preserved and the attitude judiciously chosen. He is dressed in full uniform, and decorated with the insignia of the various orders of nobility conferred upon

# BUY NONE BUT A "BELL" PRIZE MEDAL ORGAN,

**The Best is the Cheapest.**



As to the Quality of our Instruments, we will merely say that, besides getting all, or nearly all, the First Prizes at every Provincial Exhibition from 1868 to 1874, when Prizes were discontinued, we received the ONLY DIPLOMA GIVEN DURING NINE YEARS, and

**The only Medal ever Awarded**

to any Organ Manufacturer at a Provincial Exhibition. These Exhibitions were open to the world, and several leading American Firms have competed against us and have been unsuccessful.

## THE ORGANETTE.

We call the special attention of the public to the fact that we have copyrighted the above name for a NEW INSTRUMENT of our Manufacture, containing SCRIBNER'S PATENT QUALIFYING TUBES.

This wonderful improvement of Reed Instruments was brought to its present state of perfection, after many years of careful study and experiment, by Prof. G. W. Scribner, from whom we have purchased the sole right for the Dominion of Canada.



By means of these tubes the tone of the reed is rendered smooth and pipe-like, while at the same time the volume and power of tone is nearly doubled. For Churches and Halls, where the thin quality of Reed Organs has been found insufficient, these Instruments will be found to equal a Pipe Organ of double the expense; and, for the drawing-room or parlor, the smooth, flute-like quality of tone will make them the Instruments long looked for.



Every Instrument fully WARRANTED FOR FIVE YEARS, and satisfaction guaranteed.

*For Illustrated Catalogue Address*

**W. BELL & Co.,  
GUELPH, CANADA.**

## ONTARIO VINEGAR WORKS.

The Ontario Vinegar Works at Hamilton were established by Birley & Co., in 1867. The factory and office is situated on James street, Hamilton. This is the largest vinegar works in Ontario, employing a large number of men. A visit to this establishment would convince any one that their business connections are extensive, as we have seen barrels of vinegar marked ready for shipment to numerous towns from St. John's, to Manitoba, Prince Edward Island, and other places too numerous to mention.

him. The principal ornaments are in panels on the four sides of the base or pedestal, and are emblematical of the principal events in the professional life of the hero. On the west side, there is on the plinth of the base, a figure of a crocodile, emblematical of the battle of the Nile. On the panel on this side, are cannon, anchors, and other naval trophies, with a laurel wreath, which surrounds the following inscription:—

"IN MEMORY OF—

THE RIGHT HONORABLE VICE ADMIRAL LORD VISCOUNT NELSON,

DUKE OF BRONTÉ

Who terminated his career of Naval glory in the memorable Battle of Trafalgar,

On the 21st October, 1805,

After incalculating by signal, this sentiment,

Never to be forgotten by his Country:

"England expects every man will do his duty."

This monumental column was erected by the Inhabitants of Montreal,

In the year 1808."

The east panel contains a representation of the interview between Lord Nelson and the Prince Royal of Denmark, on the landing of the former after the engagement off Copenhagen. The inscription reads:

"The Right Honorable Vice Admiral Lord Viscount Nelson, Duke of Bronté, after having, on the 2nd April, 1801, with ten sail of the line and two ships of 60 guns, taken and destroyed the Danish line, moored for the defence of Copenhagen, consisting of six sail of the line, eleven ship batteries, supported by the Orowa and other batteries, displayed equal precision and fortitude in the subsequent negotiations and arrangements with the Danish Government; whereby the effusion of human blood was spared, and the claims of his country established."

On the north side of the base is represented the battle of the Nile, with the following inscription:

"On the first and second days of August, 1798, Rear Admiral Sir Horatio Nelson, with a British fleet of 12 sail of the line, and a ship of 50 guns, defeated in Aboukir bay, a French fleet of 13 sail of the line, and four frigates, without the loss of a British ship."

The south side commemorates the battle of Trafalgar, and also bears the following inscription:

"On the 21st October, 1805, the British fleet of twenty-seven sail of the line, commanded by the Right Hon. Viscount Nelson, Duke of Bronté, attacked off Trafalgar the combined fleets of France and Spain, of thirty-three sail of the line, commanded by Admirals Villeneuve and Gravina, when the latter were defeated, with the loss of nineteen sail of the line captured or destroyed. In this memorable action, his country has to lament the loss of her greatest naval hero, but not a single ship."

The monument was surrounded by a rough iron railing, the whole being enclosed within a chain, which was sup-

ported by eight pieces of cannon furnished by Sir George Drummond, then commander of the forces in Canada. The cost was £1,300 *atg.*

## PUBLIC SQUARES AND GARDENS.

The principal one, known as Viger Square or garden, is situated on Craig and St Denis streets. It contains three fountains, the largest one being in the centre of the square. Close by this fountain is a neat conservatory for the propagation of flowering roots, &c., for the decoration of this, and other city squares. The grounds are beautifully laid out, and the utmost care and great discrimination has been displayed in the choice of trees and shrubs, which are plentifully cultivated.

### VICTORIA SQUARE.

At the head of McGill street, is neatly laid out, the centre being occupied by a large fountain. Being comparatively a new square, the trees are yet but small. At the south end of this square is placed the beautiful bronze.

### STATUE OF HER MAJESTY QUEEN VICTORIA.

This work of art is from the studio of Mr. Marshall Wood, and was presented to the city by H.E. the Governor-General, on the 21st November, 1872. The cost of the statue was about \$3,000,—together with the pedestal, the latter the gift of the Corporation.

Besides the above, the city possesses several smaller squares, such as Richmond square at the extreme end of St. Antoine street; Phillips square between St. Catharine and Dorchester streets; Custom House square between St. Paul and Commissioners streets; Jacques Cartier square, between Notre Dame street and the river; and Place d'Armes square between St. James and Notre Dame streets, and immediately opposite the cathedral of Notre Dame. All these form pleasant resorts in the summer months, and afford pleasing recollections of the country to the passers-by.

### CHAMP DE MARS.

This spot, now the property of the Dominion Government, was formerly held by the Imperial Government, and used by them as a parade, or drill ground, for the use of the troops. It is 240 yards long by 120 wide, and is perfectly level. On the embankment next to Notre Dame street a range of stairs extends along the whole length of the parade, for the accommodation of citizens during the public reviews, &c. Along the upper part of the stairs is a broad terrace which serves as an agreeable promenade. It is situated immediately in rear of the Court House.

### MOUNT ROYAL PARK.

The City has recently acquired a large property on the slope of the Mountain, for the use of the Citizens as

**BIRELY & Co.,**



**ONTARIO,**

**VINEGAR WORKS**

**AND**

**BONDED MANUFACTORY.**

*METHYLATED SPIRITS A SPECIALTY.*

*HAMILTON, ONTARIO.*

## VICTORIA FOUNDRY.

Messrs. N. S. Blasdell & Co., manufacturers of steam engines and machinery of every description, established this foundry in 1865, in Ottawa. This is the largest and only first-class machine shop in the Ottawa valley. They have recently extended their foundry and work shops, and added to their machinery and tools some of the largest iron planers and turning lathes to be found in any similar establishment in the Dominion, as well as a powerful steam hammer and bolt heading machine. In fact, every thing is to be found in this mammoth establishment to make it first-class. The firm has been awarded contracts for water wheels and pumps, etc., for the Ottawa Water Works, which has been so satisfactory that it is a credit to Messrs. W. S. Blasdell & Co. The firm make mill work and water wheels a specialty, also printing presses, Gordon, Washington, and Wharfedale machines, small improved engines for printing offices, etc. The firm employ about one hundred men, using steam power.

a public park, which, for beauty and variety, for its accessibility to the City, for size, and for the magnificence of the prospect which it commands, stands unrivalled in the world.

## CHURCHES.

### CHRIST CHURCH CATHEDRAL. (EPISCOPAL.)

This church, which is unquestionably the most beautiful specimen of ecclesiastical architecture in Canada, was opened for divine service on Sunday, November, 27th, 1860. It was designed by Mr. F. Mills, [formerly of Salisbury, England.] It is of the cruciform plan and consists of a nave and aisles 112 feet long and 70 feet wide; transepts 100 feet across the tower and 25 feet wide; tower 29 feet square; and choir, 46 feet long and 28 feet wide, with aisles for organ chamber. The spire, which is entirely of stone, rises to a height of 224 feet. Connected with the choir is the robing room and clerk's room and half detached from this an octagonal building containing the chapter-house and diocesan library.

Internally, the nave, 67 feet high, has an open roof, the timbers of which are worked and carved. Two ranges of columns and arches separate the nave from the aisles. The capitals of these columns are carved and designed from Canadian plants. The four end arches of the naves spring from sculptured heads, representing the four evangelists. The ceiling of the choir is elaborately illuminated in blue and vermillion, and spangled with golden stars. The wheel window on the St. Catharine street front is in colored glass [the gift of the School Children] and also the four small windows, underneath, representing the four major prophets; the whole of the windows in the clerestory of the choir are in

colored glass. The altar window is of the most chaste and elegant description. The transept windows and the windows in the end of the aisles are also of painted glass. The pews are all low, with carved ends and without doors. The stalls in each side of the choir are finely carved. The reredos is laid with encaustic tiles, chocolate-colored ground, with *fleur de lis* in green. On one side of the altar are the sedilia for the clergy, of exquisite workmanship. Three arched canopies, on polished stone columns, support the seats; at either sides are busts of the Queen, and of the late Bishop of the diocese. Over the arches is carved, and the letters, illuminated, "Oh worship the Lord in the beauty of Holiness." The font is a beautiful specimen of stone carving, executed in England. The organ is by Hill of London, and the clock and bells are also of English manufacture.

The edifice is built of Montreal limestone, with dressing of stone, imported expressly from Caen in Normandy. The entrance porch on St. Catherine street is beautifully carved. The cost of the building was about £40,000 sterling."

### ST. GEORGE'S CHURCH, (EPISCOPAL)

Is a very beautiful edifice, situated on the corner of Windsor and Osborne streets. The material of the building is Montreal stone, Ohio sandstone being used for the decorative parts. Everything about it is solid as well as tasteful, useful as well as ornamental, made to endure as well as to delight.

The massive Gothic entrance, attractive and beautiful, though without any profusion of ornament, with the modest symbols of church and crown strong in their inherent right, is an excellent vestibule to a church which bears the name of England's patron saint.

On entering, the attention is at once engaged with the spaciousness of the edifice. It is cruciform, and the transepts add greatly to its capacity. The roof, stained and varnished, is lofty, and gives an air of venerable majesty to the whole interior. The chancel is spacious, though not very deep.

In the transept there are but three windows; in the chancel, five. The central one is dedicated to the memory of the late metropolitan. The subject of it is the "Sermon on the Mount," surmounting it is the Fulford arms, quartered, with the arms of the Diocese of Montreal. The neighboring window on the right is dedicated to the memory of the late Hon. George Moffatt. These windows, in beauty of workmanship, match anything to be seen in Montreal.

The windows in the chancel and throughout the church are chaste and subdued—the pattern being a pretty lozenge of pale yellow color, with a border of red, blue or green. Over the chancel arch of the church are the words, "Holy, holy, holy is the Lord God Almighty," and over the choir arches; "I will sing with the spirit and I will sing with the understanding," and

# VICTORIA FOUNDRY.

## EXTENSION OF THE WORKS.

The Subscribers in returning thanks for the liberal patronage bestowed on them, since the opening of the Victoria Foundry and Machine Shops, and the commencement of their business in the City of Ottawa, now upwards of twenty years ago, beg to inform

Mill-Owners, Machinists and the Public Generally,

That they have recently

**EXTENDED THEIR FOUNDRY AND WORKSHOPS,**

And added to their Machinery and Tools, some of the largest

**IRON PLANERS AND TURNING LATHES,**

To be found in any similar establishment in the Dominion, as well as a

**Powerful Steam Hammer & Bolt Heading Machine.**

They are Prepared to Furnish

**STEAM ENGINES AND BOILERS,**

Of all sizes and descriptions : likewise

**Factory, Grist and Saw Mill Machinery,**

For which they have an almost unrivalled stock of modern and improved patterns. They are now making preparations for the Manufacture of, and soon will be in a position to supply the market with,

**PRINTING PRESSES,**

Comprising three sizes of the celebrated

**Gordon, Washington & Wharfedale Machines,**

**Small, Improved Engines for Printing Offices :**

**SHINGLE MACHINES AND SHINGLE JOINTERS,**

*Leather Splitters, Knife Grinders, Hydraulic Pumps,*

Steam Pumps on the "Cameron" and "Blake" Principles,

Together with all kinds Pumping Machinery for Cities, Towns and Villages, and Iron Bridges, for which Plans and Specifications can be furnished.

The subscribers also Manufacture the Lamb, Tyler & Lefell WATER WHEELS, with latest improvements on the latter, to prevent leakage, and furnish on short notice, Brass and Iron Castings of all descriptions.

**BUILDERS' CASTINGS A SPECIALTY.**

First-class materials and workmanship guaranteed, and references given as to the satisfactory working of Machinery already supplied to the principal Milling and Manufacturing Establishments in the Ottawa Valley and elsewhere.

**N. S. BLASDELL & CO.,**

**Victoria Foundry and Machine Shops.**

**CHAUDIERE, OTTAWA.**



### J. R. BOOTH.

One of the proudest titles to an English trader or manufacturer is, when he has won his way in the world sufficiently well, to be styled "a merchant prince." In Canada, where the products of the forest in their rough state form our staple industry, and where lumber of all kinds enters so largely into most of our manufactures, the title of "Lumber Prince" might not inaptly be applied to some of the most distinguished lumbermen, and amongst this class must rank Mr. J. R. Booth, of Ottawa, one of the largest, best-known and most-respected lumber merchant in the Ottawa valley.

The lumber mills of Mr. J. R. Booth are amongst the largest in the Dominion, turning out about thirty millions of feet of lumber a year, about one-half of which is usually kept on the piling grounds, which cover over ten acres of land. The water-power is received from the Chaudière, and the mill has fourteen of Rose's improved water wheels, two for each gate, and upright and central discharge wheels. The business was established in 1857 and has greatly increased, so that at the present time it furnishes employment to about one thousand men, and four hundred teams during the winter, and about five hundred men and fifty teams during the summer, at the mills. The mills are filled with the following gang and circular saws: three gangs, containing forty saws; three slabber gangs, containing twenty saws; one yankee gate, containing thirty-six saws; one large circular saw for dimension timber, and a large number of circular saws for butting and edging. The lumber manufactured at these mills is principally exported to the United States and England.

"Singing and making melody in your hearts to the Lord."

The window tracery and chancel decorations are very tasteful. The transepts are 45 feet in length by 24 feet deep. The nave is 104 feet long by 24 feet deep; the chancel and choir together are 40 feet deep. The gas pendants—are of singularly beautiful workmanship. There are ten-five on each side, besides the one in front of the chancel. The utmost intelligence and foresight have been expended on every detail of this fine church.

### TRINITY CHURCH, (EPISCOPAL)

Situated on the north-west corner of Viger Square and St. Denis street, is of the early English Gothic style of architecture, and is built entirely of Montreal stone. The building is 167 feet in length, by 76 in breadth, including the tower and chancel. Total height of tower and spire, 163 feet. The Church will seat 1250. The other Episcopal churches, are St. Thomas', on St. Mary street, St. Stephens', Dalhousie street, St. Luke's, Dorchester street, Church of St. James the Apostle, St. Catherine street, Church of St. John the Evangelist, Dorchester street, St. Mary's church, Hochelaga.

### KNOX'S CHURCH, (PRESBYTERIAN.)

This Church, which was opened for public worship in December, 1865, is built in the early English style of Gothic architecture, and consists of a nave and side aisles, and pulpit recess. The principal entrance is through a large open porch, and there are two side entrances giving access to the galleries and basement. The nave, arches and roof are supported on light piers, which also carry the galleries, and these latter are made to project octagonally between the piers, thus relieving their usually stiff and formal appearance. The ceilings are plastered, and the roof timbers formed so as to divide them into panels; the ceiling over the pulpit recess is groined, and forms as it were a sound'g board for the speaker. The pulpit itself is a spacious platform, having a handsome Gothic balustrade in front, worked in black walnut.

The windows are filled with glass of diaper pattern, with a stained margin around the different compartments; the rose window, over the south gallery, is filled entirely with stained glass, and, with its varied colors, produces a beautiful effect. The pews on the ground floor are arranged on a circular plan, and, with the galleries, afford accommodation for about 1000 persons. The church is built of Montreal stone; the ashlar work is small, even courses of natural faced stone, the quoins, strings, weatherings, &c., being dressed. The columns of the porch are of similar stone, highly polished, producing very much the same effect as Perbeck marble.

### ST. GABRIEL STREET CHURCH. (PRESBYTERIAN.)

This Church was built in the year 1792. It is 60 feet in length and 48 feet in breadth, and will seat 750 persons. It has a small steeple which contains a bell, said to be the first Protestant bell sounded in Canada. It is a plain structure, and remarkable only on account of its age.

### AMERICAN PRESBYTERIAN CHURCH.

DORCHESTER STREET.

Built in 1865-6. Is an exact copy of Park church in Brooklyn, N. Y. Its length is 144 feet and the width 86 feet, has two towers, one being finished with a spire rising 200 feet above the street. Will seat 1,200.

### ST. ANDREWS. (CHURCH OF SCOTLAND.)

BEAVER HALL HILL.

Built in 1850, opened for public worship in January, 1851. It is somewhat after the style of the celebrated Salisbury Cathedral. The building is of Montreal stone, with a tower and spire 150 feet in height.

Interior dimensions, about 90 feet by 65 feet. Will seat about 1,000 persons. Was destroyed by fire in 1869, but rebuilt according to the original plan.

### ST. PAUL'S CHURCH, (PRESBYTERIAN)

Is situated on the corner of Dorchester and St. Genevieve

J. R. BOOTH,

OTTAWA,

Manufacturer of all kinds of

PINE SAWED

LUMBER.

A LARGE STOCK OF

LUMBER,

ALWAYS KEPT ON HAND.

ORDERS PROMPTLY FILLED.



### CHARLES BOECKH'S BRUSH FACTORY.

The brush factory of Mr. Charles Boeckh is situated at Nos. 82 and 84 York street, Toronto, opposite the Rosin House. It is a substantial four-storey brick building, with a frontage of 48 feet and a depth of 125 feet. The factory was established in 1868, is the only one of the kind in Toronto, and the largest in the Dominion, giving employment constantly to from thirty-five to forty hands. The factory is well furnished with the newest and best machines for the manufacture of all kinds of brushes, and the motive power is supplied by a fifteen horse power engine.

### ONTARIO NUT WORKS.

The Ontario Nut Works were established in 1873 at Paris, Ont., by Messrs. Brown & Co., manufacturers of square and hexagon hot-pressed nuts. The factory and office is situated on the Grand River in the town of Paris. The building is of frame, two storeys in height, 70 x 40, turning out over three tons of hot-pressed nuts every day. Employing from eight to ten hands. Water power is used in this establishment.

streets. The building is in the style known as the decorative Gothic. Will seat about 1,000 persons.

Rev. Dr. Jenkins is the present minister.

### ERSKINE CHURCH, (CANADA PRESBYTERIAN)

Was built in 1865. Size of building 136 by 79 feet. The walls are of rough Montreal stone, in small courses, the sides of the windows, doors, towers, &c., being of cut stone. Tower and spire 196 feet in height. The roof is open, showing the timbers. Will accommodate about 1,400 people.

### WESLEYAN METHODIST CHURCH.

ST. JAMES STREET.

This is the largest Wesleyan church in the city. It is an elegant building of the florid Gothic style. Its size is 111 feet by 73 feet. Will comfortably seat 2,500 persons. It contains a splendid organ. The windows, (several of which are memorial windows,) are filled with stained glass of most elaborate design.

### DORCHESTER STREET CHURCH. (WESLEYAN.)

The style of architecture is English Gothic of the 13th century. It is 63 feet by 93 feet inside. Will accommodate 800 persons. Cost \$24,000. Total height of tower and spire, 120 feet.

### SHERBROOKE STREET CHURCH, (WESLEYAN)

Was opened for public worship, May 21st, 1865. It is of the early Gothic style. The building is entirely of Montreal stone. Cost about \$20,000. On the front is a tower and spire, rising to the height of 120 feet. Will seat about 500.

### OTTAWA STREET CHURCH, (WESLEYAN)

Was opened for public worship in 1846. It is 60 feet by 85 feet, and will accommodate 1000 persons.

THE NEW CONNEXION METHODISTS have two churches, known as Salem and Ebenezer chapels, the first situated on Panet street, and the latter in Dupré Lane.

### ZION CHURCH, (CONGREGATIONAL)

Is situated on Beaver Hall Hill. Was built in 1846. Is of the Doric order of architecture, and will seat about 1,400 persons. In 1868, the organ, roof and tower were destroyed by fire; repairs were completed in May, 1869.

### BAPTIST CHURCH.

BEAVER HALL HILL.

Was opened for public worship in 1862. Is the only English Gothic style, surmounted by a tower, and is built entirely of stone. The edifice is 55 feet wide, and 80 feet in depth. The front and rear windows are adorned with stained glass, filled in with religious emblems and mottoes. Cost of the church about \$50,000. Will accommodate about 1000.

### FRENCH EVANGELICAL CHURCH.

Is situated on the corner of Craig and Elizabeth streets, and is under the direction of the French Canadian Missionary Society. It is a handsome stone edifice, of the Gothic order. Will seat about three hundred persons.

### FRENCH PROTESTANT CHURCH

On Dorchester street, near St Urbain, is a plain, neat brick building in Gothic style. Will seat 300.

### CHURCH OF THE MESSIAH, (UNITARIAN)

Is situated on Beaver Hall Hill. The style of architecture is the Byzantine. Accommodation is afforded for 800 persons.

### ST. JOHN'S CHURCH, (GERMAN PROTESTANT.)

On St. Dominique street, was erected in 1858. Cost \$7,000.

"New Jerusalem Church," (Swedenborgian) Is situated on Dorchester street, corner of Hanover.

### SYNAGOGUES.

The city contains two, one situated on Chenneville street, occupied by the English-speaking Jews, and the other on St. Constant street, occupied by the German Jews. The former are ministered to by Rev. A. De Sola, LL.D., Professor of Hebrew, McGill College, and the latter by Rev. Mr. Cohen.

### PARISH CHURCH OF VILLA MARIE. (R. C.)

CATHEDRAL OF NOTRE DAME.

The first ecclesiastics who visited the western world from Europe were two Jesuits, who were stationed as Missionaries at Port Royal in Acadia, now Nova Scotia,

# STEAM BRUSH WORKS,

82 and 84 YORK STREET, TORONTO.

## CHAS. BOECKH.

MANUFACTURER OF SUPERIOR

### Paint, Varnish, Kalsomine and Whitewash Brushes.

Special attention paid to

### Chisel, Varnish and Flowing Brushes,

For Carriage Works, Piano and Cabinet Manufacturers.

Brushes of every description and best Workmanship, always on hand.

# ONTARIO NUT WORKS,

PARIS, ONTARIO.



## BROWN & CO.,



MANUFACTURERS OF

### SQUARE AND HEXAGON

# HOT PRESSED NUTS.

DAVID BROWN.

JOHN ALLAN.

### BROCKVILLE NOVELTY WORKS.

The pleasant town of Brockville, Ont., has the honor of possessing one of the leading industries of the Dominion in the "Novelty" works of Mr. James Smart. These works were established in 1857. The works are the largest of their kind in the Dominion, and their goods are widely distributed over the Continent. This branch of industry gives constant employment to about one hundred and seventy-five men, and turns out some of the best heating and cooking stoves in the Dominion. The buildings are of brick and stone, and are very attractive, three storeys in height, 100 by 42. The warehouse is two and a half storeys in height, built of stone. The moulding shop No. 1, is 150 by 50 feet wide. No. 2 moulding shop is 150 feet in length by 60 feet in width. There are two cupolas in connection with the moulding shop for melting iron. There are a number of other buildings, such as carpenter shop, blacksmith shop, &c. All of these buildings have iron roofs, and one half of this extensive factory is devoted to the manufacture of all kinds of cooking and heating stoves. The other half is used for the manufacture of builders' hardware and stationary hardware and various other articles in the hardware line. There is also a brass foundry connected with the establishment for the manufacture of plumbers' goods. The location of this factory is such that it has better advantages for receiving and shipping goods than any we have seen in the Dominion as the works are situated on the river St. Lawrence, where vessels can receive or unload goods in the yard of this factory. The factory is well supplied with all of the most approved machinery, driven by a sixty horse power steam engine.

in 1611, under the direction of Père Coton, and through the encouragement of the Marchioness of Guercheville, a lady of the French Court, zealous to propagate the Catholic faith among the Indians of the Continent. But the first who came to Canada were four Recollets, who were brought to Quebec by Champlain in 1615, with the same design. They were the Superiors of the Mission, and the Fathers Joseph le Caron, Jean D'Oliveau and Pacifique Duplessis. Three others, Jesuits, sent out in 1635 by Henry de Levis, Duke of Ventadour, and three more were added in the following year. In 1636 there were 15 Jesuit Missionaries in Canada. Those who settled in Quebec, assisted by the Queen of France the Duchess of Aiguillon, and other benevolent individuals, formed several establishments in that City and the neighbouring country for religious instruction, the relief of the miserable, especially the sick, and the tuition of the young.

Montreal, which was founded in the year 1642 soon became the scene of similar operations. The Chapel, which was a slight and hasty structure of wood, was by degrees improved and enlarged as the wants of the popu-

lation required, and was at length succeeded by a more substantial erection of stone, in 1679. This stood in what is now called the French Square, or Place d'Armes, and occupied the middle of Notre Dame street, standing quite across, so as to divide it into two nearly equal parts and requiring travellers to pass half round the church to proceed from one part to the other. It was dedicated to the Virgin Mary, to whose protection, according to the usage of the Roman Catholic Church, the City was confided, and on this account received the appellation of Villa Marie.

As the inhabitants increased in number, the church, even in its enlarged state, became too small, and the church of Bonsecours was erected for their accommodation. The city continuing to prosper, especially after the Colony became British, further accommodation was needed; and in the year 1824 the present magnificent Cathedral was commenced. On the third of September the corner-stone was laid; and it was so far completed as to admit of being opened for public worship on the 16th of July, 1829, when high mass was performed by the Bishop of Telnesc, and an oration delivered by the Rev. Mr. Quibbler. The greater part of the Canadian Roman Catholic clergy were present, and the solemnity was attended by Sir James Kempt, Administrator, the Staff, Corporations, and other public bodies, and upwards of eight thousand persons. The edifice is a chaste specimen of the perpendicular style of Gothic architecture in the middle ages. Of this class of buildings, it has no superior on the continent of North America; and there is nothing in this part of the world to be compared with it in plain and simple grandeur.

The length of the church from east to west is 365 feet 6 inches, and its breadth from north to south, 134 feet 6 inches. The height of the flank is 61 feet from the flagging of the terrace to the eaves. The towers on the principal or west front are 220 feet high. The space between them is 73 feet by 120 in height, crowned with an embattled parapet.

There are five public, and three private entrances to the first floor, and four to the galleries, so that an audience of ten thousand persons, the number for which it is seated, may assemble and disperse in a few minutes without disagreeable pressure. The eastern window at the high altar is 64 feet in height, and 32 in breadth. It is separated by shafts into 5 compartments and subdivided by mullions into 36 divisions. The windows in the flanks consist of one range, and those in the front are finished in the same style as the eastern window. The portal is formed by an arcade, consisting of three arches, each 19 feet by 49 in height. From this arcade are the entrances to the church; and over it is placed another of the same form in relief, which connects the towers and piers. In the south-west tower is the largest bell in America, weighing 29,400 lbs., the other tower contains a chime of bells. From the summit the spectator has a magnificent view of the city and surrounding country.

# JAMES SMART,

**NOVELTY WORKS, BROCKVILLE, ONT.,**

Manufacturer of the Celebrated

**SHINING LIGHT AND ARGAND COAL HEATING STOVES,**

The "Argand" Cooking Range, Mansard, Olive Branch,  
Success, Triumph, Smart's Cook, Columbia and other first-class

**COAL AND WOOD COOKING STOVES**  
**AND HOLLOW WARE.**

Also a large Assortment of

**Builders, Cabinet Makers and General Hardware,**

Carriage Bands and other Brass Goods,

Wagon Skeins, Sad Irons, Morticing and Boring Machines,

Paint Mills, Blacksmiths Drills, Fire Benders and Upsetters,

Iron Cutters, Warehouse Trucks, &c , &c.

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*Illustrated Catalogue and Price List, Terms &c.,  
furnished on application.*

#### EAGLE FOUNDRY.

The engine works of Mr. George Bruah, 14 to 34 King street, Montreal, were established in 1823, and is one of the oldest and largest machine shops in Montreal, occupying over two and a half acres of ground, and giving employment to more than one hundred men. The buildings are of stone and brick, two storeys high, and are so constructed that each department is separate, such as the machine shop, pattern room, moulding room, brass foundry, etc. The "Eagle" engines have a well-established and well-deserved reputation through the Dominion.

Visitors are admitted to the tower on payment of a small fee.

#### CHURCH OF THE GESU.

The church of the Gesu, situated on Bleury street, is, in the opinion of many, the most beautiful church edifice in America. The style of architecture is the round Roman Arch. It is 194 feet long, and 96 wide, but at the transept the transversal nave is 144 feet long. The height of the two naves is 75 feet.

The Gesu forms a perfect cross. The head of the cross is formed by the sanctuary. The interior is frescoed in the most elaborate manner. Over the high altar is a beautiful fresco representing the crucifixion of our Lord. Higher up the centre-piece is a scene from the Apocalypse. On the ceiling of the sanctuary the shepherds are seen adoring the new-born Saviour.

Against the four large columns which support the ceiling in the centre of the cross, are statues of the four evangelists, bearing lustrous with seven branches. Near the pulpit is St. Mark with a lion; at the opposite corner of the sanctuary, St. Mathew with an ox; at the lower corner on the pulpit side, St. Luke with a child, and opposite, St. John with an eagle; in the lower part of the cross, over the organloft, is the Virgin nursing the divine child, whilst angels round about are discoursing music on various stringed instruments. Under the organ loft and on the ceiling of the lower gallery is seen the royal prophet, St. David, playing on the harp. Besides these there are frescoes, representing the raising of Lazarus from the dead; the good father receiving back his prodigal son; the good shepherd bringing back on his shoulders the lost sheep; the holy family at work, and many others. There are also in the church several very fine paintings. The church of the Gesu is attached to St. Mary's college, and both belong to the Jesuit Fathers

#### ST. PATRICK'S CHURCH. (R. C.)

This church, which will seat 5000 people, stands upon an elevated site on Alexander street. The style of architecture is the Gothic of the fifteenth century. The extreme length of the building is 240 feet, the breadth 90 feet, and the height of the spire from the pavement is 225 feet.

The interior of the building is most elaborately decorated, and the altar presents a most gorgeous appearance.

#### MONSIEUR'S CHURCH. (R. C.)

The foundation of this church was laid in 1658, but for some reason the building was not completed for some years. Mass was performed in it for the first time on the 15th August, 1675. It was consumed by fire in 1754, and rebuilt in 1771-3. It is situated on St. Paul street and is noted as being the first church built of stone in the Island of Montreal.

#### THE CANADIAN "ST. PETER'S."

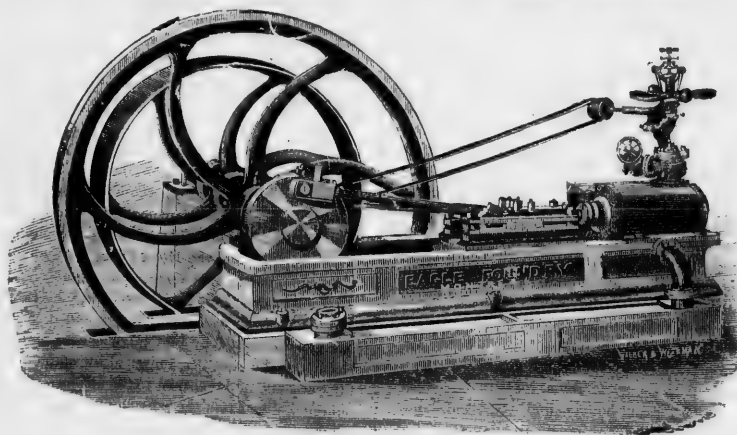
Montreal is already noted for the number of large and elegant churches which tower up in its midst, and there is now in course of erection a Cathedral unequalled on the Continent, for size and imposing appearance.

In 1852, the old Cathedral and Episcopal Palace which for so long had stood on St. Denis street, were destroyed by fire. Shortly after, a parish church was built on the old site in the East End, and the Bishop removed to new and roomy quarters in the large and plain looking brick mansion on Palace street, which he now occupies. A few years later, by the purchase of a portion of the estate of the late Jacob De Witt, and a section of ground from the *Fabrique* of the Parish of Notre Dame, used as a cemetery, Bishop Bourget had under control a large block of land in an elevated position, situated in the West End, adjoining his palace, and very suitable for the erection of a giant cathedral. He shaped his plans accordingly, and the Catholics in his diocese, gradually becoming wealthy, afforded him an opportunity to indulge in the ambitious project of building an edifice which would rival the New York Cathedral in size and magnificence and surpass all others in North America. The subject was broached to his clergy, and by them imparted to the public. Subscriptions were called for; contributions from high and low flowed in; religious enthusiasm was awakened, and in 1859 the cash result was so gratifying that definite operations were commenced. Monseigneur Bourget interviewed architects, looked at various plans of church edifices, had estimates prepared; but after deliberation, he concluded to imitate the grand but simple architecture of St. Peter's at Rome, and build its counterpart in the New World. M. Victor Bourgeau, a well known and skilful Canadian architect, was commissioned to prepare the plans for the new building; and after a voyage to Europe, for the purpose of studying old St. Peter's in detail, he returned, and in company with M. Aleibiade Leprohon, drew out his plans accordingly.

The cathedral is being erected in the form of a cross, 300 feet in length from the grand entrance to the back of the nave, while its breadth—or length of the transept—is 225 feet. The length of the building will be further increased by a portico 30 feet in width. The average height of the walls will be 30 feet. Those to support

# EAGLE FOUNDRY,

14 to 34 KING STREET, MONTREAL.



## GEORGE BRUSH,

MANUFACTURER OF

STEAM ENGINES, STEAM BOILERS,  
Steam Pumps, Donkey Engines, Circular Saw-Mills,  
Gear Wheels, Shafting, Pulleys, Hangers, &c.

**IMPROVED HAND AND POWER HOISTS,**

Blake's Patent Stone and Ore Breaker.

AGENT FOR

**WATERS' PERFECT ENGINE GOVERNOR.**

"Heald and Sisco" Centrifugal Pumps.



## INGERSOLL FOUNDRY.

Established in 1837. Messrs. Thomas Brown & Co. are successors to Eastwood & Co. Messrs. Brown & Co. have bought the extensive machinery, stock and tools, patterns, etc., of the late firm; and they have made several improvements in adding all of the most approved machinery to the already well stocked machine shops. We should judge from the appearance of the class of machinery that is now in use in this factory, that Messrs. Brown & Co. have facilities for the manufacture of agricultural implements, engines, boilers, cheese fittings and steam threshing machines second to none in the West. The firm keep only first-class mechanics, which cost more but are the cheapest in the end. They also have retained in their employ the late manager, Mr. Kerr. Customers may rely upon having their orders attended to, as he is one of the most energetic young men we have met with. The factory is situated in the Town of Ingersoll, about four hundred feet south of the River Thames, fronting on Charles street south, running north to St. Andrew street, taking in Mill street on the east, covering about two acres of land. The buildings are of brick, three storeys in height. The public offices are in the front and the private office is on the right as you enter. We then pass out to the show room. There is a large number of engines, steam boilers, and agricultural implements, marked ready for shipment to all parts of the Dominion. We then pass to the work shop, this is a large room 70 x 100 feet. There is a large number of men at work. We then descend to the lower floor. This room is used as a finishing shop, 70 x 75 feet. In the rear of this is the moulding shop, 60 x 70. There are about twenty men employed in this branch of the business. We then visit the boiler shop, this is a large building. The firm is extensively engaged in the construction of boilers. In the front of this is a blacksmiths' shop for heavy work. There is also a steam saw mill connected with the establishment, and in fact every thing to make it one of the most complete establishments of the kind in the West. They use forty horse steam power and give employment to over one hundred men.

the roof of the nave will have to go 42 feet higher, with an additional elevation of 86 feet under the great dome. Thus the extreme height of the masonry from the floor will be 138 feet. The roof, which is to be of galvanized iron, will not be modelled after that of St. Peter's, for though at Rome the climate admits of a flat roof, it is otherwise in Canada.

The large dome will be the handsomest part of the Cathedral and will be erected over the transept, supported on four gigantic pillars of oblong form, and 36 feet in thickness. As the dome will be 70 feet in diameter at its commencement, and its summit 210 feet from the spectators on the floor of the church, some idea may be had of its vast proportions. It will be an exact copy on a smaller scale of the mighty dome of St. Peter's, and

when complete will be 250 feet in height—46 feet higher than the towers of the French Church in the Place d'Armes. On the outside, the foot of the dome will be strengthened by 16 pairs of Corinthian pillars, twenty-five feet in height, and surmounted by pilasters. The space between the former is to be filled by large windows richly ornamented. Above these pillars the dome will curve gracefully up to its apex, from which a grand *lanterne* will arise, surrounded on a smaller scale by ornamented pillars. Above this again will be placed a huge gilt ball, and, pointing towards the heavens from its summit, will be seen a glittering cross, 13 feet long.

A splendid view of Montreal will be obtained from the ball, such as visitors get from the top of the dome of St. Paul's in London. It may here be stated that the dome of the Montreal cathedral is to be constructed of stone, which is not often attempted in works of such magnitude. Four smaller domes equi-distant from the major one will surround it, and be fully as large as those surmounting Bonsecours market and the Hotel Dieu.

A magnificent portico of the composite style of architecture is to be erected in front of the church. It will be 210 feet long, 30 feet wide, and will, from its delicate carving, being surmounted by two huge clocks, and a group of statues of the Apostles, chiselled by eminent sculptors, present a favorable contrast to the unadorned and unhewn church walls. From the portico five large entrances will communicate with the vestibule, an apartment 200 feet long, from which entrance to the body of the cathedral will be obtained through numerous archways.

An interior view of the church with its walls ornamented with frescoes, statuary and paintings from the Italian school of art, seen here and there between the vista of lofty pillars, will be very striking. Under the immense dome will stand the high altar, and leading away from around it will be seen rows of arched pillars dividing the aisles and supporting the roof. Beside the grand altar there are to be twenty chapels in the Cathedral, and in each of the four immense pillars which support the dome, there will be room for three commodious altars. The foot of each pillar is to form a vault for the reception of the bodies of bishops, &c. Light will be admitted through the five domes, and will be increased by six large lanterned casements and a number of small windows. The building will be heated by hot water, a large basement being excavated for the extensive boilers, fuel, &c., required therefor. There will be no colonnade by which to approach the edifice, as at St. Peter's, Rome; but the grounds are to be ornamented with fountains, &c. The building is now nearly one third completed, and a noticeable fact connected with the church is that work only progresses on it as funds are collected, so that it incurs no debt and will be all paid for when finished.

## PUBLIC BUILDINGS.

### THE COURT HOUSE.

This building, situated on Notre Dame street, is after

**INGERSOLL FOUNDRY. Established in 1837.**

**THOMAS BROWN & CO.,**

**Successors to EASTWOOD & CO.,**

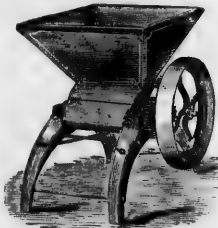
MANUFACTURERS OF ALL KINDS OF

**AGRICULTURAL IMPLEMENTS, ENGINES, BOILERS,**

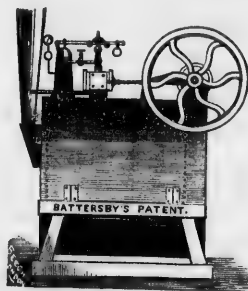
**CHEESE FACTORY FITTINGS, STEAM THRESHING MACHINES.**

Estimates furnished and Repairing done on the shortest notice.

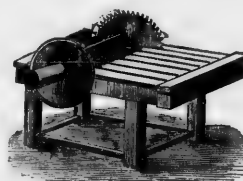
Having bought the Stock, Tools, Patterns and Machinery of Eastwood & Co., we are in a position to furnish and supply all kinds of Machines and Repairs that have ever been manufactured by the late firm with promptness and despatch. All Machines warranted. Best of Material used and the most experienced workmen employed. All Machines tested before they leave the Works.



Thos. Brown & Co.'s  
**GRAIN CRUSHER,**  
geared for Rod or Belt.



Thomas Brown & Co.'s Portable Return Tubular **BOILER and ENGINE,**  
for Cheese Factories, Printing Offices, &c., requires no brick work, has no equal in America. Send for Circular.



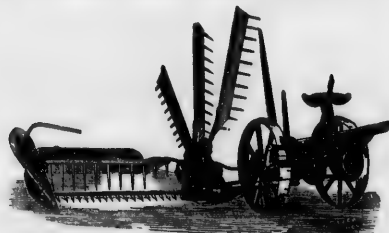
Thos. Brown & Co.'s  
**CIRCULAR SAWING MACHINE**  
for Steam or Horse Power.



Thomas Brown & Co.'s First Prize and Diploma **THRESHING MACHINE,** with Swing Straw Carrier Attachment, and Patent Safety Couplings; for expeditious work, lightness of draft, and thorough cleaning qualities, it has no equal.



Thomas Brown & Co.'s **STRAW CUTTERS,**  
geared for Belt or Rod. Hand Straw  
Cutters made same style.



Thos. Brown & Co.'s Combined Self-Raking **REAPER**  
and **MOWER,** with Smith & Sciotto's Reaping Knives  
and Fitting Apparatus. Has taken 20 First Prizes.

**THOMAS BROWN & CO., Ingersoll, Ont.**

### BROWN & ST. CHARLES.

Messrs. Brown & St. Charles, carriage manufacturers, were established in 1851. The factory and offices are situated on 431 Front street, Belleville, Ontario. The show-room is built of brick, three storeys in height. The blacksmiths' shop, wood shop, paint and trimming shops are in the rear, covering about half an acre of ground, employing some twenty-five men. This is the largest and only first-class carriage factory in Belleville. The firm make omnibusses a specialty, which are equal in style and finish to any New York bus, and can now be seen in use in Toronto, Montreal, Belleville, Cobourg, Lindsay, Whitby, Port Hope, Collingwood, and in nearly all of our principal cities and towns, and we would say to those who intend purchasing a new bus to call at Brown & St. Charles before purchasing elsewhere.

the Grecian style of architecture, and is in its unpretending and massive grandeur, second to few buildings in the City. The most striking feature is its large Ionic portico, and the bold projection of the pediment, which gives the central portion of the principal front a very noble appearance.

The front is divided in its length into five compartments, the wings advancing somewhat less than the centre, so as to give the facade an artistic prominence, and to free the building from that monotony which marked the earlier public buildings of the City. Ample proportions are given to the entrances, vestibules, corridors, and staircases, while spacious halls of Justice and public offices are laid out, as well as ante-rooms and private chambers for the Judges and chief officers of the Court. Besides capacious fire-proof vaults, the building contains rooms for the Police, Criminal, Circuit, Superior and Appeal Courts, Advocates' rooms, Council room and library, offices for the Prothonotary, Sheriff and Registrar, and rooms required for all other officers engaged in the administration of Justice. The total length of the building is 300 feet; width 125 feet; height 76 feet. It is built entirely of Montreal stone, and the roof is covered with tin. Cost about \$300,000.

### THE BONSECOURS MARKET.

Is equal, if not superior, to any building of the kind in America. It is of the Grecian Doric style of architecture. The cost of its erection was about \$200,000.

One half of the upper portion of this building is occupied by the offices of the Corporation, and the Council chamber. This building is the first to attract the attention of the tourist as he approaches the city, from the River. It has an extensive frontage on the river side, and is three storeys in height, with a lofty dome.

### CUSTOM HOUSE.

The new Custom House is the splendid building erected by the Royal Insurance Co., and which the Govern-

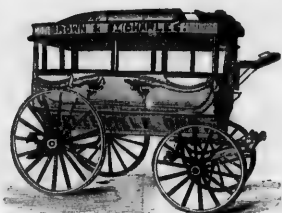
ment, in 1870, purchased for \$200,000, the splendid oak furniture and fittings, safes, &c., being transferred with the property. Alterations were made to make it suitable for its new purposes. There are three principal entrances, one, and the most imposing, being that by the stone portico facing on Custom House square, and the other two being from Commissioners street, and Common street respectively. Entering by this main entrance, the Landing waiters' offices are on the left hand side, and the warehouse offices on the right. Immediately adjoining the former is the Surveyor's office. Passing through the Landing waiters' room, we come to the offices of the Sampler and weigher, and the Tide Surveyor. The first offices on the second story are those of the Collector, a large room for the Clerk, and which may be used as a waiting room, adjoining it, the public offices of the Collector, and again adjoining this, a private office, all of them neatly fitted up. Directly opposite to the Collector, is the office of the Chief Clerk and Treasurer. Descending, from the passage between them a few steps, we enter the long room, emphatically the chief feature of the building. It is 94 feet long, 26 feet wide, and 27 feet high. The ceiling is very beautifully decorated, and at one end is placed the Royal Arms. On the other side of the stairs leading to the long room from the side entrance, is the Shipper's room, large ante-room for sailors, and near them are the Appraisers' rooms, the whole in such close proximity as to make them very convenient. The warehousing apartments are exceedingly spacious and commodious. Three elevators, worked by steam power, are used in taking packages to the different flats.

### MERCHANTS EXCHANGE.

In the Arrêts of the French King, dated at Paris, May 11th, 1717, we find the following:—

"On the petition presented to the King by the merchants of Quebec and Montreal in new France, containing: 'That trade being the principal means by which the colony can be sustained and augmented, it is impossible that the merchants can ever flourish as long as they have not the liberty to assemble in a convenient place to treat mutually of their business; that the meetings of merchants have appeared to be requisite for the utility of commerce in all the cities of France, and that if His Majesty will grant them the same grace, they hope that the measures they will take for the trade will render it in a short time flourishing; they therefore beseech His Majesty to permit them to assemble every day in a suitable place in each of the said cities of Quebec and Montreal—to all of which His Majesty having had regard; having seen the said petition; heard the report, and considered the whole, His Majesty being in His Council, with the advice of Monsieur the Duke of Orleans, Regent, has permitted and permits the said merchants to assemble every day in a suitable place in the cities of Quebec and Montreal, there to treat of their commercial affairs, &c.'"

**BROWN & ST. CHARLES,**



**OMNIBUS BUILDERS,**

**481 FRONT STREET,**

**BELLEVILLE, ONT.**

**ALL BUSSES GUARANTEED.**

**REFERENCE MADE BY BUS MEN IN**

**Trenton, Cobourg, Port Hope, Whitby, Toronto, (Marlborough House,  
Lindsay, (Benson House,) Peterborough, Collingwood.**

**ALSO SEVERAL NOW RUNNING IN MONTREAL.**

**ORDERS SOLICITED.**

**BROWN & ST. CHARLES.**

#### M. BRENNEN,

Manufacturer of saah blinds and doors, established in 1865. The factory is situated 63, 65 and 67 King William street, Hamilton. The buildings are built of brick, three storey in height, and are the largest and most extensive establishments of the kind in Hamilton, giving employment to over forty hands, doing a business of eighty to one hundred thousand dollars a year, using thirty-horse steam power.

Until 1863, there was no building set apart as an Exchange, when a building was erected upon the site occupied by the present Exchange. It was destroyed by fire on Christmas morning, 1865. The present building is three stories high, with basement and finished attics. The ground floor is divided into large double offices, with safes. On the second floor is the reading-room, sixty feet by thirty-two feet, extending from front to rear, with offices for the Secretary and two other double offices. The third and fourth are occupied as offices, a portion of the latter being used as a residence for the keeper. The building is heated with steam. The facades are cut stone, the principal one, facing on St. Sacrament street, being in the Italian style, with main entrance in the centre.

#### CORN EXCHANGE.

This building forms the corner of St. Sacrament, St. John and St. Alexis streets. It is three stories in height, the upper being equal in height to the two lower ones. The lower story and a portion of the second is of dressed Montreal stone. The upper portion is of red brick, with stone dressing. The upper flat is fitted up as an elegant and spacious hall for the transaction of business; and is frescoed in a simple yet effective style. The room is well lighted with lofty windows on three sides.

Adjoining this room is the Secretary's office and Board room.

#### MECHANICS' INSTITUTE.

Situated on the corner of St. James and St. Peter streets, is in the Italian style of architecture, and consists of three divisions; the centre having a portico with columns and rusticated pillars on lower story. The pillars and quoins are ornamented. In the second story is the reading room, library and class rooms. In the third story is the main hall, which will comfortably seat 800 persons. The library of the Institute contains about 8000 volumes, and the reading room is supplied with all the leading newspapers and periodicals.

Classes in mechanical drawing and other branches are sustained by the Institute during the winter months, and are well attended; large numbers of the members availing themselves of the privileges thus afforded them. In obtaining teachers for these classes every effort is made to secure the best talent of the city.

#### INSTITUT-CANADIEN.

This institution occupies and owns a building of cut stone, four storeys in height, situated on Notre Dame street. It was founded in 1844, previous to which, the French had not a single library in the city, nor a place where they could read or meet together. It was incorporated in 1852. The library at present contains over 7000 volumes, and the reading room is supplied with nearly 100 French and English journals. A few years ago, Prince Napoleon presented the library with books valued at \$2,600. They are elegantly bound, and comprise works on the arts and sciences, and general literature. The late Emperor Napoleon also presented the institution with statuary, &c., valued at \$1,000.

There are several other public libraries in Montreal, as follows:—

Advocates Library and Library of the Bar, founded 1827; Canadian Mechanics' Institute, founded 1857; Grand Trunk Reading Room and Library; Institut Canadien Français; Œuvre des Bons Livres, founded in 1844, and the Canadian Mechanics' Institute.

#### NATURAL HISTORY SOCIETY'S MUSEUM.

Is situated on University street, and is built of white brick. On the ground floor is the lecture room library, committee room, and residence of the keeper. The second story, which is about 36 feet in height, contains the museum, which is surrounded by a gallery, and lighted by skylights. Around the sides of the principal hall are cases containing birds, reptiles and quadrupeds. The centre is occupied by cases of mineralogical and geological specimens. In the galleries are specimens of shell fish, corals and shells, of which a large collection of fine specimens are exhibited. The walls are hung with paintings, Indian dresses and curiosities, specimens of paper money, cases of coins, medals, &c. The principal attraction in the galleries is the Ferrier collection of Egyptian and other antiquities, collected by Hon. James Ferrier during a tour in the east, and presented to the Society by him.

#### GEOLOGICAL SURVEYS' MUSEUM.

Situated opposite the west end of the Champ de Mars, is a plain stone edifice, three stories in height.

The Geological Survey of Canada was instituted in 1843 by the Provincial government, and one of the duties imposed upon it was the formation of a Provincial museum, to illustrate the geology and mineral resources of the country. This object has been kept in view, and the museum has gradually assumed a value and importance which renders it at the present time second to few on the continent for the purposes to which it is devoted. It is open from 10 a.m. to 4 p.m. and is free to all.

#### THE NEW POST OFFICE.

Is on the corner of St. James and St. François Xavier streets, and has a frontage on St. James street of 129 feet.

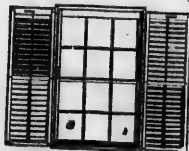
M. BRENNEN,

WHOLESALE AND RETAIL

LUMBER DEALER.

PLANKS, SHINGLES and CEDAR POSTS.

BLIND,



SASH,

AND

DOOR MANUFACTURER.

68, 65, 67 KING WILLIAM ST.,

HAMILTON, ONT.

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### JOHN BURNS.

The stove factory of Mr. John Burns, which has gained considerable celebrity throughout the Dominion, and especially in Montreal, on account of its being the only place in Canada where the French cooking ranges are manufactured, was established in 1860, and has grown larger and stronger with increasing years. The factory is situated at No. 513 La Gauchetière street, Montreal, and is a fine five-storey brick building, having a frontage of fifty feet by a width of one hundred, and furnishes employment to sixty or seventy men, a fifteen horse-power steam engine being used to run the machinery, which is very thorough and complete. Mr. Burns sells stoves of all kinds, but his specialty is the French cooking range, which, for comfort, convenience, simplicity and saving of fuel, is unequalled by any other range or stove. No one who has used one would ever have any other again, a fact well proved by their constantly replacing other makes in the leading hotels and private residences and public buildings. Amongst the principal hotels now using this range we may mention the St. Lawrence and Ottawa, of Montreal, where it gives entire satisfaction. Amongst the public and charitable institutions using it are the St. Hyacinthe College; Marine Hospital, Quebec; Home of the Good Shepherd, St. Hubert, P.Q.; Convent of the Sacred Heart, Montreal; St. Bridget's Refuge, Montreal; St. Mary's Convent, Hochelaga; St. Mary's College, Montreal, and many others, while it is fast finding its way into all first-class houses. To sum it up in brief, it has few equals and no superior. The office and sales room is at 675 Craig street, Montreal.

Its depth from St. François Xavier street to Fortification lane is 95 feet. The height of the main building from the ground level to the roof is 88 feet, and from the basement to the summit of central tower 120 feet. The building is constructed of Montreal greystone. The style of architecture is the modern Italian. The facade on St. James street is highly ornamented with cut stone pillars, pediments and carved portico, while the Mansard roof is decorated with richly furnished mouldings. The central tower contains a large illuminated clock with three dial plates. The Mansard roof is of wood and protected with iron and slate. The basement and first floor is constructed of fire proof materials, and the entire frame of the building is of iron, while the floors are laid in Baccarini cement and well trussed with iron for the greater preservation of the valuable contents of the building. It has cost about \$500,000. This building is one of the greatest ornaments to the city and has only been occupied a few weeks by the Post Office department.

### VICTORIA SKATING RINK.

Skating is one of the most popular of the amusements pursued by the citizens of Montreal during the winter

season. While the river St. Lawrence furnishes room for all who may desire to practise the art, still the violent storms often prevent it being practised in exposed places.

To provide against this, several private rinks have been erected, the principal one being that known as the Victoria Rink.

The building is 250 feet long by 100 broad, is built of brick, and covered by a semi-circular arch-like roof, fifty feet high in the centre. The space used for skating is surrounded by a promenade, raised about a foot above the level of the ice. The front portion of the building is two storeys in height, and contains on the lower floor, commodious dressing, cloak rooms and offices.

At the extreme end of the building is a gallery. The building is lighted at night by gas, with colored glass lamps. When many hundreds are on the ice, and, with every variety of costume, pass through all the graceful figures that skaters delight in, the scene presented is dazzling. The following, taken from the columns of a local newspaper, is a description of a carnival held at the Victoria Rink, on the occasion of the first visit of the Governor General and the Countess of Dufferin: "When Lord and Lady Dufferin, attended by their suite, took their seats under the dais about eight o'clock, the scene was magnificent. Never since the carnival in honor of the Prince of Wales' visit has there been such a brilliant assemblage in the Victoria Skating Rink. As the band discoursed the noble strains of "God Save the Queen," the skaters left the attiring rooms and, bounding on the ice, commenced their graceful evolutions. Every nationality under the sun was represented. Indians of various tribes, with thick layers of war paint, brandishing tomahawks and scalping knives; Spaniards and Italians shooting love and jealousy from their piercing black eyes; obese Dutchmen, with their indispensable pipes and peculiar gait; negro minstrels, rattling bones and thrumming tambourines and banjos; girls of this period with immense chignons and unsightly Grecians; girls of the olden times in quaint but comely costumes, eclipsing the so-called finery of the nineteenth century belles; Chinamen and Japanese, laboring hard to show their superiority over the nations they despise; brigands intent on plunder; pirates glorying in their deeds of blood; riflemen in their simple uniform, glowing with the ardour peculiar to volunteers; ladies of the Elizabethan period proving beyond dispute their claims to beauty and fashion; swells of this and other ages, sporting eye-glasses, ringlets, and languishing whiskers; in fact, such a commingling of curious characters as to excite all kinds of emotions in the breasts of the observers.

Round and round the glassy surface they glided, while the Bande Independante Canadienne in the side gallery played majestic marches, lively quadrilles, and sparkling polkas. For several hours the perpetual movement was kept up. There could be no lagging with such bright

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# JOHN BURNS,

MANUFACTURER OF THE

## Celebrated French Cooking Hot Air Furnaces, &c., &c.

With my recent improvements and increased facilities for manufacturing, I am prepared to sell better work, at lower prices, than any other house in the trade. All I ask is a careful inspection of my goods on my sample floors, or an examination of them in use.



RANGE, 3½ ft. 4 ft. 4½ ft. 5 ft. 6 ft. and any size required.

## HOTEL AND FAMILY RANGES.

### REFERENCES:

Hon. Thos. Ryan, Peel Street,  
Romeo H. Stephens, St. Laurents,  
F. A. Quinn, Longue Pointe,  
James Ross, Sherbrooke Street,  
George Winks, Dorchester Street,  
Mrs. A. Simpson, 1122 Sherbrooke Street,  
G. H. Ryland, Lacombe Street,  
Henry A. White,  
James Crathern, Sherbrooke Street,  
O. McGarvey, Palao Street,  
H. J. Shaw,  
C. O'Brien, St. Elizabeth Street,  
Alex. Holmes, 202 St. Antoine Street,  
E. O'Neill, Windsor Street,  
A. Shannon, Palace Street,  
A. Pincasault, Windsor Street,  
M. H. Gault, McTavish Street,  
James McShane, Jr.,  
W. Stephens, Point aux Trembles.

Jas. O'Neill, Palace Street,  
Dr. Wanless, Union Avenue,  
E. A. Lindsay, Sherbrooke Street,  
Jas. Jack, Sherbrooke Street,  
Mrs. Rigby, Metcalf Street,  
B. McNally, 11 Dorchester Street,  
Bodega Wine Company, Notre Dame Street,  
Robert Reid, Mansfield Street,  
Mr. Stevenson, Windsor Street,  
E. A. Whithead, Sherbrooke Street,  
J. F. Seybold, University Street,  
Jas. L. Wiseman, Outremont,  
Madame Giddens, St. James Street,  
E. A. Bernard, Verones, Quebec,  
Ottawa Hotel,  
St. James' Club,  
Metropolitan Club,  
Metropolitan Hotel, Notre Dame Street,

C. Larin, City Hotel,  
Younis & Son,  
St. Hyacinthe College, St. Hyacinthe,  
St. John's Hotel, St. John's,  
Martin Hospital, Quebec,  
Good Shepherds, St. Hubert, Quebec,  
Convent of the Sacred Heart, St. Margaret Str.,  
St. Bridget's Refuge,  
Hochelaga Convent,  
Providence Nunnery, St. Catherine Street,  
Convent, St. Hyacinthe, Quebec,  
North American Meat Co., Montreal,  
St. Mary's College, Bury Street,  
J. A. Haffer, Peel Street,  
J. C. Holden, St. Monique Street,  
John Ware, Craig Street,  
Etc., Etc., Etc.

Send for Illustrated Catalogue and Price List.  
Warerooms at 675 Craig Street, Montreal.

eyes and pleasant faces looking encouragingly on. Surely the greatest pleasure that ever fell to the lot of fair women and brave men is to don fantastic costumes and take part in a skating carnival in the presence of a fashionable gathering like that of last evening."

#### THE YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING.

This building, situated on the corner of Craig and Radegonde streets, is one of the finest in the City. The style is the mediæval or decorated Gothic. The foundation and some four feet of the base, is of Montreal limestone, but the superstructure is of Ohio sandstone. In its design the building has one feature, distinguishing it from every other secular or ecclesiastico-secular structure in the City, namely, a richly crocketed spire, springing from a dwarf arcaded tower on the corner facing Craig and Radegonde streets. The effect is striking and highly favorable. The main entrance on Radegonde street stands out in relief, and has a slightly projecting porch, with turrets, gable, &c.; and the doorway has richly moulded columns; while over it is a window filled with tracery. The windows are well relieved with mouldings and columns. The roof is of the Mansard pattern and was adopted in subservience to the requirements of the climate, to which the Gothic roof, with its many snow collecting angles, is not so well suited. It is surmounted with an appropriate cresting, which gives a light and pleasing finished. In the interior is much to admire. The wood work is finished without paint, presenting an unusually striking and rich effect. On ascending the broad stairway to the second floor the visitor passes betwixt a glass screen and a counter, to reach the reading room. On the right of this passage, or corridor, is placed the library, in which the book cases are stained and varnished, and have an effective incised ornamentation, while the arcading enclosing the office, challenges attention by its rich detail of diaper and cusped arches. The reading room (which is free to all) is a most elegant and cheerful apartment. There are pictures on the walls, and the floor is covered with handsome carpeting. The lecture Hall, on the third story, covers the whole superficial space of the building, and is 25 feet high. It is large and airy, and is seated for eight hundred, with metallic chairs covered in green morocco. The whole building is heated by steam. The centre store on Radegonde street is occupied by the Bible Society.

#### MONTREAL TELEGRAPH COMPANY'S NEW OFFICES.

These new buildings, situated at the junction of St. Sacrament with St. Francois Xavier streets, are in the modern Italian style of architecture, and specially adapted to the requirements of the Telegraph Company. They

are built of the best quality of freestone from Berea, Ohio, U. S., being transported the long distance intervening, at considerable expense. There is 65 feet frontage on St. Francois Xavier street, while that on St. Sacrament street is 135 feet. The height of the building from the street level to the top of the dormer windows is 74 feet. On the ground floor, in the angle formed by the junction of the two streets, is the main entrance to the public receiving room; a fine airy apartment about 60 feet by 40, and 18 feet in height. It is sub-divided by handsome glazed partitions, and so arranged as to afford ample accommodation for the steadily increasing Montreal business—a space equal to 40x91 feet being devoted to the public.

The extensive operating room, fitted with the instruments, and all in motion, is an interesting sight; its adjuncts, and the engineer's offices are on the second floor, while on the last flat is the stationery department, work room, &c.

Upon the roof, crowning all, is the cupola, looking like an immense pepper-cutor, being punctured all round with scores of holes for the admission of the web of wires which will here centre from the vast and steadily increasing number of offices which dot the Dominion in all directions. From the cupola the wires are carried to the operating room.

The edifice, which has been constructed in a very substantial manner, forms a noteworthy addition to the number of elegant and substantial public buildings that the Canadian metropolis possesses.

#### BANK BUILDINGS.

##### MERCHANTS BANK OF CANADA.

This magnificent edifice, said to be the finest building for commercial purposes in America, is situated on the corner of St. James and St. Peter streets. The general design is of modern Italian character, the basement being rusticated and faced with grey Halifax granite, while the rest of the building is built of Ohio sandstone, with polished Peterhead red granite columns in the principal entrance. Internally, the arrangement is somewhat peculiar, the general banking office being arranged at the back of the building, approached by a central corridor from the street. This is a handsomely designed room, about 69 feet by 50 feet, and 42 feet high, paved with tessellated tiles, with galleries for head clerks, &c., on two sides. Out of this main banking office, which is fitted up in the most elaborate style, are the strong rooms, which have been designed and constructed with the utmost possible care, to ensure the safety of their contents against fire and thieves, no expense having been spared to make them as perfect as possible. In the first and second floors are arranged the board-room, secretary's rooms, and other offices, and the whole building is fitted up with every convenience. The windows are filled with double

THE CANADIAN  
**RUBBER COMPANY**

**OF MONTREAL.**

*ESTABLISHED 1854.*



MANUFACTURERS OF

**RUBBER GOODS.**

Would call attention to their varied assortment of

**RUBBER BOOTS AND SHOES,**

**PATENT PRESSED BELTING,**

**RUBBER PACKING,**

OF ALL KINDS.

SUCTION and LEADING HOSE, of all sizes,

Improved CARBOLIZED Fire Engine Hose,

**WARRANTED.**

Mills, Towns and Villages supplied on the shortest notice.

All orders executed with promptness and despatch.

**FRANCIS SCHOLES, Manager.**

## THE CANADA PAPER COMPANY.

From the earliest ages man has striven to perpetuate his thoughts in some way or other. The earlier nations used inscriptions on stone, metals, &c., but the necessity for greater facilities, and also, probably, a demand for greater cheapness, brought about the discovery of the art of making paper. The credit for the invention of paper-making is usually ascribed to the Egyptians; but some writers say that the art was known to the Chinese long before it was discovered in Egypt, and even that the Chinese made their paper from a pulp and in a mould, while the Egyptian style was still more primitive. The earliest attempt at paper-making of which we have any record is that of the Egyptians making paper from papyrus, a reed-like plant which grows very abundantly on the banks of the Nile. When the Egyptians first began to manufacture paper from this plant it is impossible now to determine, but it was certainly many centuries before the Christian era; indeed it is claimed by some writers that it was in use at least two centuries before the time of Moses, and that the first five books of the Bible were written on it by him, and not on stone as others suppose. There is now in the museum of Turin an Egyptian manuscript said to contain an act drawn up in the reign of Thouthmosis III., who reigned 200 years before the time of Moses; and there is another manuscript which bears the date of the ninth year of the reign of Sesostrius Rameses, who was the son of Pharaoh who was swallowed up in the Red Sea.

The Egyptian style of preparing their paper was very simple, and more like making a natural paper than what could properly be called a manufacture. The papyrus, according to tradition, was separated into thin layers and cut into pieces of equal size. These were placed side by side on a smooth table until the size required was attained, when another layer was placed across it; both were then moistened with the water of the Nile, which was supposed to contain glutinous properties (although it is more likely the properties were in the plant) and allowed to dry in the sun; after this the sheet was rubbed with a smooth stone or an ivory tooth to make the surface even, and the manufacture was complete. The Egyptians were very jealous of their art, and in the year 263 B. C. Ptolemy prohibited the exportation of papyrus, fearing that Eumenes of Pergamus might make a library equal to that of Alexandria.

The next great step towards providing writing material was the discovery of parchment by Attalus, of Pergamus, 190 B. C.; but it is said that the Persians had written their records on skins for ages before that. Parchment was made from the skins of various animals, but the best parchment books which have come down to us are made from goat-skins. Parchment quickly superseded papyrus, and remained for over eight centuries the main means of preserving records. The first mention we hear of paper which approaches our modern paper

is in 704, when the Arabians are said to have learned the art of making paper from raw cotton from the Bucharans, who had practiced the art for some time previously. It is also said that paper was made from twigs reduced to a pulp, by the Chinese, 170 B. C. The art was carried into Spain in the eleventh century, and the first paper mills were erected in that country. Linen soon began to take the place of, or to be mixed with, cotton, on account of its finer texture and not being so liable to break.

English manuscripts on linen paper exist, dated 1340, but it is not probable that the paper was made in England as we hear nothing of a manufactory there until 1496, when the "Bartolomeus" of Wynkyn de Worde appeared, in which it is stated that the paper was made by John Tate, jun., at his mills near Stevenage, Hertfordshire. As we hear nothing more of Tate it is probable he failed, and John Spielman, a German who erected a mill at Hartford during the reign of Queen Elizabeth, either in 1588 or 1590, generally gets the credit of having the first paper mill in England. All the paper then was made by hand and in the single sheet, and it was not until 1709 that any attempt to introduce machinery and to make a web was made. The invention was the work of Louis Robert, a workman in the employ of M. Didot, the great French printer of the day, who purchased the model and took it to England in 1801, and conjointly with Fourdrinier perfected the machinery, which was patented in the same year. The machine has undergone many important changes and vast improvements, but it still bears Fourdrinier's name.

At first the manufacture of paper was entirely from linen or cotton and as the quantity made rapidly increased fears were entertained that the supply of linen rags would become exhausted. This led to searches for other substances to take the place of rags, and it was found that various grasses, barks of trees, &c., would make paper, and at last it was found that wood itself could be converted into a very fair paper. On account of its cheapness wood enters very largely into the manufacture of paper in Canada, and we will give a brief description of how paper is made from wood at Windsor mills.

Leaving Montreal by the 9 a.m. train a ride of about four hours by the Grand Trunk and Eastern Townships Railways brings one to the flourishing little village of Windsor Mills, situate on the east bank of the St. Francis River, 86 miles from Montreal. Here, almost opposite the depot, are the paper mills of the Canada Paper Company, which occupy about four acres of ground, and turn out an average of about four tons per day. These mills were erected by Angus, Logan & Co. in 1865, and were run by them until 1872, when the firm was merged into the present Company. The paper manufactured at Windsor is largely made from wood, and is used for books, newspapers and envelopes; the mills of the Company for making wrapping paper being at Sherbrooke. On entering the mill the visitor is surprised to see great

# PAPER & STATIONERY.

CANADA PAPER CO.,  
(Late ANGUS, LOGAN & CO.,)

MAKERS OF

Books, News, Coloured and Envelope Papers,

Manilla, Brown, Gray and Straw

WRAPPING PAPERS,

ROOFING FELT PAPER, MATCH PAPER,  
STRAW BOARD;

And importers of every description of

Paper & Stationery, Twines, &c.

Agents for

The Celebrated Gray's Ferry Printing Inks.

Patent Silicate Lithographic Papers,

WHARF DALE AND OTHER PRINTING PRESSES.

SPECIAL ATTENTION GIVEN TO

PRINTERS' SUPPLIES.

Mills at Sherbrooke and Windsor Mills, P. Q.,

Head Office and Stores 374, 376 and 378 St. Paul Street,

**MONTREAL.**



heaps of ordinary cordwood stacked up, and still more surprised to see how it is treated. The wood is usually bass, but balsam and poplar are also used. Bass makes the whitest paper, but balsam is of rather tougher fibre and makes a stronger paper, although not quite so white. A stick of wood is thrown into an iron boot, which has a couple of straps across it to prevent the wood from flying out, and at the end of which is a chopper, worked by steam and running at the rate of about 200 revolutions a minute.

This chopper cuts the wood into chips of about three-quarters of an inch in thickness. These chips fall into a series of iron buckets fastened to an endless leather belt, also run by steam, and are carried to the second storey, where they are placed in large rotary boilers, filled with water and boiled to a pulp, a quantity of chemicals being added to decompose the useless matter in the wood, but preserve the fibre. This boiling process occupies about eight hours, and the half-formed pulp at this stage is dark, heavy, coarse and full of pieces of undecomposed wood, &c. In order to free it from these impurities it is washed by being made to pass through very fine oscillating sieves while a stream of water runs on it. The fine fibrous matter passes through the sieve, while the coarser matter remains behind. The "half stuff," as the pulp is called in this condition, next passes through a pair of cylinders to extract the water, and comes out in a thick, dark roll, which is very brittle, and does not run in a continuous sheet.

This "half stuff" is taken in boxes to the bleaching room where it is placed in large vats containing a solution of chloride of lime, or some other strong alkali, and gains its proper color. It requires about three hours to bleach and then goes to the engine room, where the percentage of rag pulp required—usually about twenty per cent.—is added and where the sizing is done. The size is to give it a consistency and a harder texture, but it is not absolutely necessary for newspaper; nearly all the paper for newspapers in the United States is made without size, but all Canadian paper is sized, which makes it finer and stronger.

The sizing is poured on the pulp with a quantity of water in the beating engine where they are thoroughly mixed, and the pulp is then pumped up into the "stuff chest," which is a large vat immediately over the machine and is ready to be rolled into paper. There are two Fourdrinier Machines, each about forty feet long and consisting of a number of rubber, wire and cloth rollers and hot-air cylinders. The vat in which the pulp is has a slit at the bottom which is so arranged that just enough pulp can escape to form the paper of the breadth and thickness required; of course, the pulp flows continuously as the paper is made in a web, i.e., one long sheet, and is afterwards cut into such lengths as are required. On leaving the vat the pulp is quite thin and a small stream of water runs over it all the time; it immediately passes through a pair of rollers and then as-

sumes the appearance of paper, goes next over an apron of rubber cloth and over a screen of fine wire work, which drains off a quantity of the water, and reaches the first hot cylinder, of which there are seven, placed in pyramidal form, four lower and three upper ones. The paper passes between all these, the cylinders, which are heated by steam, gradually growing hotter, until by the time the web reaches the last one it is thoroughly dried and perfectly freed from all its water. It then passes through a series of solid calendar rolls to give it a smooth surface and is rolled up on a large spool at the end of the machine. When about one hundred pounds has been collected it is cut off and taken to the cutting and packing room.

Three rolls are then placed about two feet apart at the back of the cutting machine, below each other, and the three webs run in together so that three sheets are cut each time. The cutting machine is very simple, consisting of two small circular knives, one at each end, which cut the edges of the sheet smooth, and another knife in the centre when paper of the size of double demy, for instance, is being made to divide the sheet into two, as paper for small sheets is made at the mill twice the width required. Two girls receive the sheets, which are afterwards counted into quires and packed up in reams for shipment.

The mills employ about 120 hands, which are divided into day and night gangs, for the mills work day and night all the year round. The average price for labor is about \$2.00 a day for skilled, and \$1.25 for unskilled labor, and the wages bill for a year foot up something like \$40,000.

The company's mill at Sherbrooke is about the same size as the Windsor mills establishment, employing about the same number of hands and turning out about two and a half tons of paper a day. The paper made at the Sherbrooke mills is all wrapping and packing paper, match paper, felt paper for roofing and paper for laying under carpets.

#### CRAWFORD & CO.

Messrs. Crawford & Co. rank amongst the oldest manufacturing firms of agricultural implements in Canada, being established in 1855. The office and factory is situated on Dundas street, London, Ont., and is one of the finest and most attractive buildings in the city; it is built of brick, is three storeys high, and has a frontage of two hundred and twenty five feet, by a depth of two hundred. The firm employ seventy-five hands; and use a fifty horse-power engine to work their extensive machinery. Messrs. Crawford's specialty is the I.X.L. mower and reaper, which has gained a well deserved reputation in the Dominion; but they also manufacture seed drills, cutting boxes, corn shellers, ploughs and other agricultural implements.

# CRAWFORD & CO.,

MANUFACTURERS OF THE

## I X L

### MOWER & REAPER,

**Wrought Iron Frame Combined Machine.**

ALSO,

SEED DRILLS, CUTTING BOXES,

Horsepower and Sulky Hay Rakes,

**CORN SHELLERS, PLOUGHS, &C.,**

**LONDON, ONTARIO.**

#### PERSEVERANCE, ENTERPRISE, SUCCESS.

In the year 1862, L. J. Campbell & Co., manufacturers of leather belting and fire-engine hose, unrivalled in quality, established themselves in commodious premises at No. 594 St. Joseph street, Montreal. Business, pushed with vigor, steadily increased, and it was again and again, in consequence, found necessary to extend the accommodation. Finally, during the course of last season, in view of the magnitude of the trade they drove throughout the length and breadth of the country, it was determined to erect a very considerable addition to the former buildings three storeys in height with a basement beneath and of extensive frontage. The new premises have but recently been completed and placed in thorough working order. Space does not admit of even a sketch of the manner in which the hides purchased exclusively in the marts of Chicago and St. Louis are prepared for belting and hose; but suffice it to say that the arrangements could not be better calculated for the end in view. The leather is of the best quality, selected from the best part of the hide and thoroughly adapted for the purpose, being invariably tested previous to sale. The Company manufacture belting of every desirable size and thickness, and so widely is the excellence of the workmanship known that at the present time they command fully three-quarters of the trade in the Dominion, in this branch; being more especially patronized by the wealthy manufacturers of this city, and all over the Dominion and England. Their hose is of the finest material, and is in large request, orders being received from towns in Manitoba to the districts of Prince Edward Island. A depot for the convenience of the country has been established in the Phoenix Block, Toronto. The Company also make a specialty of the manufacture of the American short-lap belting.

sashes, the inner one glazed with plate glass. The bank-room windows and doors are fitted with Burnett's patent wrought-iron revolving shutters, and electric bells are used throughout. A telegraph office, with wires communicating with all the telegraph systems in the city, is fitted up within the building, and a handsome electric clock marks the time, with dials in five different parts of the structure.

#### BANK OF MONTREAL. [PLACE D'ARMES.]

Is built in the Corinthian style of architecture, and has a frontage on St. James street of over 100 feet and extends to Fortification lane in the rear. The entrance is by a portico supported by immense columns of cut stone. These are surmounted by a pediment. The sculpture on the pediment is 52 feet long and weighs over twenty-five tons, there being twenty different pieces. The figures are colossal, eight feet in height for a human figure, and are placed at an elevation of fifty feet from the ground. The arms of the Bank, with the motto, "Concordia Sa-

lus," forms the centre of the group. On each side, *vis-à-vis*, is seated a North American Indian. The other two figures are a settler and a sailor on either side, the former, with a calumet or pipe of peace in his hand, reclining upon logs, and surrounded by the implements and emblems of industry, the spade, the plough, the locomotive engine; literature and music putting in a modest appearance in the distance, in the shape of a book and a lyre. The whole sculpture is in Binny stone. The work was executed by Mr. John Steel, R. S. A., Her Majesty's sculptor in Scotland.

#### MOLSONS BANK.

Situated on the corner of St. James and St. Peter streets, is a magnificent building, built entirely of Ohio sandstone. It is three storeys in height, with a lofty basement. The style of architecture is the Italian, and is highly ornamented. The main entrance is through a portico supported by highly polished columns of Scotch granite. On the two upper storeys of the front, are richly carved wreaths of flowers, fruit, &c. The front is surmounted by a richly carved shield, bearing the arms of the Molson family, and supported by two female figures, the whole being executed in sandstone. The third story of this building is used by the Board of Arts as a school of design.

#### BANK OF BRITISH NORTH AMERICA.

Situated on St. James street, near St. Francois Xavier street is built entirely of cut stone, and is of the Composite style of architecture. The head office of this bank is in London, England. It was established in 1836, and was incorporated by Royal Charter in 1840.

#### ONTARIO BANK.

Is situated on Place d'Armes. Is in the Italian style of architecture, four storeys in height, and built of Montreal limestone. The arched entrance to the bank and houses, with their masked key stones, are bold and massive, and projecting wreaths of myrtle leaves are introduced between the windows. The frontage of the building is fifty feet; the depth seventy feet. The roof is surmounted by an ornamental iron railing.

#### BANQUE JACQUES CARTIER.

The new building occupied by this bank is situated on the east side of Place d'Armes, and is a well executed building in the modern French Renaissance style, four storeys in height, with high Mansard roof.

#### BANQUE DU PEUPLE.

Is situated on St. James street. It is a large building of cut stone, and is three storeys in height. Above the windows of the lower story are four compartments, in which are placed emblems representing agriculture, manufactures, arts and commerce, executed in bas-relief.

L. J. CAMPBELL & CO.,

Manufacturers of

STRETCHED

LEATHER BELTING,

594, 596 & 598 St. Joseph Street,

MONTREAL.

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AGENCIES.

15 Front Street, West,

TORONTO,

AND

7 NEW WESTON STREET,

Bermondsey, London, ENGLAND

### OTTAWA BOILER WORKS.

The Ottawa Boiler Works are situated at the corner of Bay and Maria streets, Ottawa, and is the oldest establishment of its kind in the Ottawa Valley. The works were opened by Messrs. Campbell & McBride, in 1870, and cover over half an acre of ground, giving employment to twelve or fifteen men. All kinds of steam boilers of every variety are turned out by this enterprising firm, and repairing is made a specialty of.

### CHARITABLE AND HUMANE INSTITUTIONS.

#### MONTREAL GENERAL HOSPITAL.

DORCHESTER STREET.

This institution stands at the head of the public establishments for the relief of misfortune and suffering, and in respect to the excellence of its management has no superior in the Dominion. It owes its origin to the philanthropic efforts of a number of ladies, who, about the year 1815, formed themselves into a Society called the "Ladies' Benevolent Society." The great increase of immigration had brought to our shores vast numbers of persons who were incapable of reaching their destination, being overtaken by sickness on their passage, or detained by poverty on their arrival, and unable to procure either support or medical attendance. This Society was formed expressly for the relief of such cases, who were sought out and promptly relieved. The inhabitants entered so heartily into the scheme, that, in 1818, a fund of £1,200 was raised for the purposes of the Society, and a soup kitchen was opened, where the ladies superintended the distribution; but more than this was needed, and the necessity of providing for the sick was presented to the public. The citizens determined to proceed with the erection of a building, and on the 6th day of June, 1821, the foundation stone of the building, [which now forms the centre portion], was laid with Masonic honors, by the Right Worshipful Sir John Johnson, Bart., Past Provincial Grand Master of Canada. In less than a year the building was finished, and on the 1st May, 1822, it was opened for the reception of patients. On the 18th May, 1831, the Hon. John Richardson, the first president of the institution, died at the age of 76 years. His friends, desirous of erecting some monument to his memory, at first decided to place a cenotaph in Christ Church, but when the subscription list was closed it was found that the amount subscribed far exceeded that required for the work, and as the demands for admission to the hospital were greater than its capacity, it was resolved to devote the money thus acquired to the enlargement of the building, by erecting a wing, to be called the Richardson wing. Accordingly, on the 16th September of the same year, the corner stone was laid, and the building was opened for the reception of patients on the 7th December, 1832.

In 1848, the widow of the late Chief Justice Reid added the wing known as the Reid wing, as a monument to the memory of her husband.

Lately another wing has been added called the "Morland wing." This building fronts on St. Dominique street, and is attached to the west wing of the main building. It is a plain but rather imposing structure, built of stone, four storeys in height, besides a high Mansard roof.

#### HOTEL DIEU.

Was founded in 1644, by Madame de Bouillon, for the reception of the sick and poor, and was situated on St. Paul street, along which it extended 324 feet, and on St. Joseph [now St. Sulpice street], it was 468 feet in depth. The buildings consisted of an hospital, convent and church. Before the establishment of the Montreal General Hospital, this was the only place to which the afflicted poor of the city could be sent for relief. It furnished for many years a refuge for the miserable, and help for the sick, to whose comforts the sisters devoted themselves with the most praise-worthy benevolence. The increased demand for aid rendered it necessary that more extensive premises should be obtained, added to which was the fact that the neighborhood was so thickly built up, that it became necessary to remove the hospital to a more open locality. To meet this the present extensive premises on St. Famille street were erected. This is the most extensive religious edifice in America. It is composed of the church, convent and hospital. The grounds are surrounded by a massive stone wall, the circumference of which is one and a half mile. The Physicians of the Institution are the Professors of the French School of Medicine. Previous to the conquest, the Hotel Dieu was supplied with medicines and other necessities by the French Government; at present the funds are derived from rents of lands, charitable bequests or donations, and an annual grant from Parliament.

#### GREY NUNNERY. (Founded in 1755.)

Is a large hospital and Nunnery situated on St. Catherine street, west, and extending south to Dorchester street. Of the size of the institution we may form an idea from the fact that at present it contains 139 Nuns (known as sisters of charity), 37 Novices, and 500 inmates, while over 5,000 visits are made annually to the sick and poor of the city, and from the dispensary over 10,000 prescriptions are given to the poor gratis during each year. In addition to their own establishment, and the visits of the sick, the sisters have under their charge several other benevolent institutions, viz.:

*St. Joseph's Asylum*, on Cemetery street, for the reception of orphan boys and girls, which has 250 inmates.

*St. Patrick's Orphan Asylum*, connected with St. Patrick's church, contains about 200 inmates. It was founded in 1849, solely for Irish orphans and aged persons. In connection with this Asylum is an infant school,

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# OTTAWA BOILER WORKS!

**CORNER BAY AND MARIA STREETS,**

The Oldest Boiler Establishment in the City.

OTTAWA.

The undersigned, Proprietors of the above works, beg to call the attention of the interested public throughout the Dominion, to their thorough facilities for the

MANUFACTURE OF

## STEAM BOILERS,

Of all kinds, including

**MARINE, PORTABLE AND MILL BOILERS,**

Of every description, the latter being made a specialty. Also Manufactured here—

Brewers' Pans, House Boilers, Bank Vaults, Iron Doors,

Water Tanks, Oil Tanks, Smoke Pipes for Saw Mills, &c.,

And every description of

**IRON AND PLATE WORK!**

Repair Work of all kinds well executed. Address communications to

**CAMPBELL & MCBRIDE,**

Proprietors, Ottawa.



#### G. CHAPLEAU.

The safe factory of Mr. G. Chapleau was established in 1864. The office is situated at 318 and 320 St. Lawrence Main street. The factory is situated on the corner of Ontario and St. Charles Borromée streets. The buildings are built of stone and brick, three storeys in height, with French roof. This is one of the largest safe factories in Montreal, giving employment to from fifty to eighty men. The safes manufactured here are of as good quality, both in material and finish, as any now manufactured in the Dominion. Sargent's combination lock is used on all of Mr. Chapleau's safes, and the safe that is now on exhibition at the Centennial at Philadelphia is a credit to the manufacturer, as it is one of the finest ever manufactured in this country, and we should not be at all surprised to hear of Mr. Chapleau receiving the first prize at the Centennial.

also taught by the sisters, which is attended by 450 pupils.

*Nasareth Asylum for the Blind, and Infant School*, is built on St. Catherine street, has over 425 pupils, and a number of blind persons.

#### PROTESTANT HOUSE OF INDUSTRY AND REFUGE.

Is situated on Dorchester street, near Bleury. The building is of brick, three stories in height, with a high basement. On the first story is the Ladies' Industrial Department, and the general offices of the institution; the second story contains the Board room and dwelling of the superintendent, the third story being fitted up as dormitories. Religious services are conducted in the Board room every Sabbath afternoon by the clergymen of the city in turn, and a medical officer has charge of the health of the inmates. All casual visitors receive a meal in the morning and evening, and as payment for breakfast they work at making kindling wood for one or two hours. The number of inmates averages about 65 in summer and 120 in winter. The number of night lodgings given during the year is about 10,000. The institution possesses a farm, which, was left them by the late Mr. Molson, upon which, at some future day, buildings will be erected for permanent inmates. The Ladies' Industrial department is under the management of a committee of ladies, who during the year give employment to a large number of workers.

#### MONTREAL PROTESTANT ORPHAN ASYLUM,

Situated on St. Catherine street, is a stone building of neat appearance, and has pleasant grounds attached. Children are not allowed to leave the asylum before the age of 8 or 9 years, except when adopted into respectable families. The orphans are instructed in the rudiments of a religious and useful English education; and the girls, in addition to needle work, are early taught the domestic duties of the establishment.

Besides the institutions already described, there are in the city upwards of 60 societies, such as the German, New England, Irish Protestant Benevolent, St. Patrick's, St. George's St. Andrew's, &c., which afford to their members, or to others, relief, assistance, or protection.

#### EDUCATIONAL.

##### MCGILL UNIVERSITY.

This University, founded by James McGill, Esq., a merchant of Montreal, who died on the 19th December, 1813, at the age of sixty-nine years, is the most important educational netitude in the Province of Quebec.

Not having any children, Mr. McGill determined to devote a large portion of his fortune to some object of benevolence connected with his adopted country, and in his last will, made two years before his decease, he set apart his beautifully situated estate of Burnside, on the slope of the mountain, with a sum of £40,000, for the formation of a University, one of the colleges of which was to be named the McGill College.

McGill College is situated on Sherbrooke street. The structure consists of a main building, three storeys in height, with two wings, connected therewith by corridors. These buildings and corridors, which are built of Montreal limestone, contain 100 class rooms of the Faculty of Arts, with its museum and library; the residences of the principal, the professors in charge of the resident under-graduates, and the secretary.

The library contains over 8,000 volumes of standard works. This number does not include the library of the Medical Faculty, which contains upwards of 5,000 volumes. The museum contains a general collection of type specimens of zoology; the Carpenter collection of shells; the Cooper collection of 2,400 Canadian insects; collections of Canadian fresh water and land shells; also Botanical, Geological and Mineralogical specimens.

The philosophical apparatus is valued at \$5,000 and the chemical laboratory is furnished with all the necessary appliances. At the west end of the college buildings is situated the observatory, the basement of which is devoted entirely to the observations on Terrestrial Magnetism. The ground story and leads are devoted to Meteorological observations.

The transit tower is for the purpose of furnishing time to the city, and to the ships in the harbor, and is connected by electric telegraph with a "Time Ball" at the wharf. The grounds which surround the main buildings, have been planted and laid out as walks, thus rendering them a favorite resort for the residents in the neighborhood. The University is under the direction of Principal J. W. Dawson. LL. D., F. P. S., F. G. S.

The following are affiliated with the University:  
McGill Normal School.  
Model School of McGill Normal School.

# GODFROI CHAPLEAU, DOMINION SAFE MANUFACTORY.

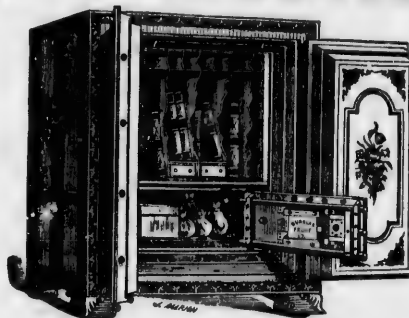
FIRST

AT

PRIZE

THE

Provincial



Exhibition

1873, MONTREAL; AND 1875, OTTAWA.

## FIRE-PROOF SAFES,

Welded Steel and Iron

## BURGLAR-PROOF SAFES

AND

## Fire and Burglar-Proof Safes Combined.

The recent improvements made in my Safes guarantee them superior in Fire-resisting and Burglar-proof qualities to those of any other make of Safe in the Dominion. Sargent and Greenleaf's Combination Locks are used on my Safes.

Also, Iron Vault Linings, Burglar-Proof Vault Doors, Fire-Proof Doors, Iron Shutters, Iron Doors for Public Buildings, Messengers' Chests and Deed Boxes, Cell Doors and Gratings, Jail Safes, Bank and Store Door Locks,

## IRON BRIDGES AND GIRDERS, &C., &C.

A large number of Second-hand SAFES, of different makers, always on hand, which will be sold CHEAP.

Also MANUFACTURER OF STONECUTTERS' TOOLS; and also AGENT FOR M. MOODY'S PUNCHING MACHINE.

OFFICE,  
FACTORY,

320 St. Lawrence Main Street,  
Corner Ontario and St. Charles Borromeo Streets.

**MONTREAL.**

ALSO PROPRIETOR OF "LEFORT'S

## PATENT IMPROVED NIGHT WATCHMAN DETECTOR"

To test regularly the faithfulness of guardians.

It is used as an ordinary time piece, and is recommended to Banks, Prisons, Asylums, Public Offices, Manufacturers, Warehouses, &c., and in fact to any institution where a check on the night patrol is needed.



## PROVINCIAL EXHIBITION BLUNDERS.

At the Provincial Exhibition this year my brick machine, contrary to expectations, was only awarded the second prize. That my machine is superior to the one which was awarded the red ticket was so palpable as to be a subject of general remark on the Exhibition ground, by those who were competent to judge of the merits of the respective machines. Why the judges acted as they did is not for me to say. That matter I am content to leave to those who were present whilst the merits of the various machines were being considered. I may say, however, in justice to myself, that I offered to pit my machine against the one which was awarded the first prize for excellence in the manufacture of bricks, the owner of the machine adjudged the poorer to pay \$100. This offer was not accepted by the successful competitor; however, should he think better of his refusal I wish to inform him that it is still open. To show that I am not unjust to the judges I append a testimonial in favor of my machine signed by practical men who were at the Exhibition.

Ottawa, Sept. 23rd, 1875.

We the undersigned, practical brickmakers, have seen the Ontario Brick Machine working on the Exhibition ground as well as the Canada Brick Machine, and do consider the Ontario Brick Machine to be the best. JOHN MCGREGOR, Westminster; NESGUELD WARD, Prescott; WM. ROWLAND, Ottawa; WM. EVANS, Gloucester, Billings Bridge P. O.; FREDERICK KIPPER, Ottawa; HENRY HOLZ, Ottawa; PETER MCGREGOR, Ottawa; G. ROBERTSON, Reporter *Free Press*, Ottawa.

I might also say that I sold the machine I had on exhibition at Ottawa to a practical man—Mr. Wm. Rowland—who purchased it in preference to the Montreal one sporting the red ticket. Mr. Rowland has a Montreal machine in his yard, but bought mine for the purpose of making a superior quality of brick.

JOSEPH CLOSE.  
Woodstock, Ont.

High School of McGill College.  
Morin College, Quebec.  
St. Francis College, Richmond, P.Q.  
Congregational College, Montreal.  
Presbyterian College, Montreal.

In addition to the above, Montreal possesses many institutions in which instruction may be obtained in every department of knowledge, from the highest branches of science, downward; among the most noticeable of these, are the Seminary of St. Sulpice, founded in the year 1657 by the Abbe Querus; the Jacques Cartier Normal School, Notre Dame street; British and Canadian School Languechétère street; St. Mary's College and Faculty of Law, Bleury street, &c., &c.

## CLASSICAL AND COMMERCIAL ACADEMY.

Is situated on the height of ground between St. Catherine and Ontario streets. It is a new building of a chaste

and beautiful appearance, and assumes proportions that at once attract the attention of all passers by. The edifice is 195 feet in length, 45 feet in breadth, and three storeys in height. In the centre of the building on each side is a large entrance, the surroundings of which are beautifully ornamented with elaborate workmanship in stone.

Surmounting the building, above each doorway, is a tower, seventy feet in height, pyramidal shaped. The whole structure has an appearance of stateliness and solidity.

## TO QUEBEC.

From Montreal to Quebec, passage is made on one of the elegant steamers of the Richelieu and Ontario Navigation Company, called the "Montreal" and "Quebec." Leaving Montreal in the evening, passing the ruins of the fort on St. Helen's island in the harbor, leaving Longueuil to the right, and passing the group of islands below the city, and the mouth of the Ottawa river, you are fairly on your way to the old capital.

## SOREL.

Forty-five miles below Montreal, is the first port at which a halt is made by the steamer. Sorel is built on the site of a fort built in 1655 by M. DeTracy, and was for many years the summer residence of successive governors of Canada. It is situated at the confluence of the rivers Richelieu and St. Lawrence, population about 8,000. Five miles below Sorel the river expands into a wide lake nearly twenty-five miles in length, and nine miles in width, known as

## LAKE ST. PETER.

The river St. Francis here enters the lake from the south. During the descent to Quebec, a great amount of shipping of every class will be passed, and immense timber rafts will be observed floating down to the great timber mart at Quebec, sometimes in single rafts, and sometimes in many, combined into a floating timber town, populous with hardy lumbermen, whose songs enliven the monotony of their voyage.

## THREE RIVERS,

Situated midway between Montreal and Quebec, is one of the oldest settlements in Canada, and has Convents and Church edifices of considerable architectural pretensions. The town was first settled in 1618. Population about 9000.

The famous falls of Shawanegan, second only to those of Niagara, are but twenty four miles from Three Rivers, and those of the Grand Mere thirteen miles further up the St. Maurice. The celebrated St. Leon Mineral Springs are also twenty-four miles from here.

The Chaudiere River enters the St. Lawrence about six miles above the city of Quebec. At this point the precipitous banks of the St. Lawrence increase in height,

# **JOSEPH CLOSE,**

Patentee and Manufacturer of

## **THE ONTARIO BRICK MACHINE,**

PATENTED 1871.



### **FIRST PRIZE**

On Machine, and First Prize on Bricks made with it, at the Provincial Exhibition, Toronto, 1874.

*SEND FOR CIRCULARS AND PRICE LIST. Address*

**JOSEPH CLOSE,**

**WOODSTOCK, ONT.**

## THE CANADA CORDAGE FACTORY.

The Canada Cordage Factory and Plaster Mills, St. Gabriel Locks, Lachine Canal, Montreal, were established in the year 1825 by the present proprietor, John A. Converse. They are situated on the south bank of the Lachine Canal, immediately above the St. Gabriel Locks, and just outside of the City limits.

The Cordage Factory, fully equipped with all the latest machinery, is one of the largest in America, and would compare favorably with any other in the world. It has a capacity of turning out ten tons of cordage in ten hours, and employs, on an average, two hundred hands. Every size and description of rope is made, though white and tarred manilla is considered the specialties, and for which this manufactory has a very high reputation.

Not only in the Provinces of Quebec and Ontario is the rope of this celebrated manufactory found, but all through the provinces of Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland, and a large business is also done with the West Indies.

The Plaster Mills are adjoining the Cordage Factory, and, owing to the proprietor owning an extensive gypsum quarry in Cape Breton, he is able to supply plaster at a very low rate.

Every description of calcined plaster is ground, from the ordinary coarse plaster for house purposes to the extra superfine required for dentists use. Gypsum is also ground to a considerable extent for agricultural purposes, and the yearly capacity of the mills is about 25,000 barrels calcined plaster, and the same amount of land plaster. A derrick on the canal bank unloads barges by water-power, causing very little delay, and dumps the stone into the mill-room. This near proximity to the canal makes it very convenient for parties requiring heavy material, such as soapstone, cement, marble, etc., etc., ground, the mills being always prepared to take this description of work.

and the eager stranger catches a distant view of the towers and battlements of the grand old northern City

Before reaching the town, "Wolfe's Cove" will be pointed out, to the left, that memorable spot where the brave commander landed his forces under cover of darkness, and scaling the precipice, fought the battle which changed the destiny of the western empire. The round Martello towers, in advance of the defences of the city, on the plains of Abraham, first attract attention; and you sweep in full view of the defiant battlements and towers which crown the natural walls of old Quebec—the seat of ancient dominion—where jealous nations contended for supremacy, and shook its rocky throne with the roar and clash of contending armies.

### QUEBEC

Was founded in 1608, by Samuel de Champlain, on the site of the Indian village of Stadacona. No city on

the Continent so impresses the tourist, by the startling peculiarities of the site and novelty of its general aspect, as this "Ancient Capital," or stamps its impress so indelibly in eye and memory. A massive wall of hewn stone, of nearly three miles in length, and varying, but everywhere of forbidding height and thickness, with projecting bastions and frowning cannon, communicating with the outward world by five massive gates, encloses the better portion of Upper Town. The

### CITADEL

Will perhaps prove the point of greatest interest to many, from the historical associations connected therewith, and from the fact that it is considered an impregnable fortress. It covers an enclosed area of forty acres, and is some three hundred and forty feet above the river level. The zigzag passage through which you enter the fortress, between high and massive granite walls, is swept at every turn by formidable batteries of heavy guns. On the flanking river walls at each angle or possible commanding points guns of heavy calibre sweep every avenue of approach by the river. Ditches, breastworks and frowning batteries command the approaches by land from the famed "Plains of Abraham." The precipitous bluffs, rising almost perpendicularly from the river, three hundred and forty feet, present a natural barrier which may be swept with murderous fire, and the covered ways of approach and retreat, the various kinds and calibre of guns, mortars, howitzers and munitions of war, will be viewed with eager interest. Among the places of interest may be mentioned:

The Plains of Abraham, with its monument, marking the place where fell the illustrious Wolfe.

The Governor's Garden, with its monument to Wolfe and Montcalm.

The spot where fell the American General Montgomery.

The Roman Catholic Cathedral with its many fine old paintings.

The Episcopal Cathedral.

The Esplanade, from which is one of the finest views in the world.

Houses of Parliament.

Spencer Wood, the residence of the Lieut. Governor. Laval University, &c., &c.

In Quebec living is comparatively cheap, and hotel accommodation is as good as any Canadian city can furnish. There are several minor hotels, and some extensive ones, such as the two newly furnished, vast hotels—the St. Louis Hotel, the Russell House, and the Albion Hotel, kept by the popular caterer to the comforts of travellers, Dr. Kirwin, which have, of course, from their size, the first claim on the traveller's attention; and the rush of visitors at these hotels during the summer months sufficiently testifies to the comfort and civility, which await the traveller.

The city and environs abound in drives varying from

ESTABLISHED 1825.

# CANADA CORDAGE FACTORY,

AND

## PLASTER MILLS,

St. Gabriel Lock, Lachine Canal.

---

J. A. CONVERSE,

PROPRIETOR.

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Office, 347 St. Patrick Street.

POST OFFICE ADDRESS, DRAWER 54.

MONTREAL.



## BROCKVILLE AGRICULTURAL WORKS

In 1861, Messrs. G. M. Cossitt & Bro. started the manufacture of agricultural implements at Smith's Falls, a village 25 miles north of Brockville. As their business increased from year to year, the disadvantage of an inland location made itself more and more felt, the facilities for receiving and shipping freight being limited and to a great extent unreliable. In 1872 the firm decided to locate more favorably, and selecting Brockville on account of its extremely favorable position, erected in that year permanent substantial buildings, fitting them up with all the latest improved machinery needed for manufacturing agricultural implements, having sold their factory and contents at Smith's Falls.

The buildings stand on a lot about 200 x 500 feet, the north side of which is occupied by the freight warehouses of the Grand Trunk Railway; between the storehouse and the depot is a siding, running the whole length of the lot.

In order that farmers may gain a good idea of the Works we will commence with a description of the moulding shop, which, occupying a building 50 x 80 ft., stands some sixty feet in rear of the main premises. There is a furnace building built on the north side of the main moulding shop which, sixteen feet square, is of sufficient size to hold the large furnace that has a capacity for melting five tons of iron each day. The air for this furnace is driven one hundred and fifteen feet by one of the largest sized celebrated Sturtevant noiseless blower fans. Inside the shop, a visitor will find, generally, about thirty men at work, the floor covered with all the appliances used for moulding; a large crane capable of hoisting ten tons stands in the centre, and two small air furnaces, for melting brass and gun metal for pitman boxes, are placed in convenient locations.

Crossing the road running across the lot between the moulding shop and main building, which latter is 50 x 260 ft. in size, we first see a shed built on the end of this building, containing in one end four "rumbles" for cleaning castings, and in the other a part of the large stock of wrought iron which is annually used. Before going into the main building we will notice the boiler house, an edifice 18 x 24 ft., built separately from all the rest and used for holding the boiler in the lower story; above is a drying house capable of receiving and kiln drying 20,000 feet of lumber at once. The heat is communicated to this room by steam pipes and two large flues which lead from the outside wall up through the furnace; these flues, taking the air from the outside, heat it in its passage through the large fire box, and pour a large volume of hot air into the room above. On the side of the boiler house is a steaming apparatus for preparing the bent stuff used on self-raking reaper platforms, and the fellos of the rake wheels.

Entering the blacksmith shop we find sixteen men at work at eight forges, which forges are supplied with air

by another "Blower" of the same pattern as one described above. This shop, 40 x 50 feet, in addition to the usual complement of tools, forms, etc., required in this class of work, has a very large massive punching and shearing machine, capable of thus working the heaviest iron required on the agricultural machines, and in fact heavier if ever needed. A tire bending machine, numerous bolt machines, etc., are almost always in use.

From the blacksmith shop we enter the machine, or lathe room, and first see the 50-horse power engine, which furnishes the power that keeps everything moving. This room is fifty feet wide by one hundred and twenty long; the entire floor is covered with lathes, drills, planers and punching machines, bordered on the sides by benches fitted with vices, and other necessary appliances, used by the workmen employed. Fourteen solid iron pillars, eight inches in diameter, and fifteen feet high, support the line of main shafting, from which radiate belts in every conceivable direction. It is a very interesting sight, one often admired by visitors, to stand at one end of this room and see the whole in motion. The main shaft revolves at a speed of one hundred revolutions per minute. A peculiarity of this shafting is the manner in which it is supported. A bracket in each pillar is made so adjustable as to be readily moved either up and down or sideways. On these brackets the boxes in which the shaft revolves are placed. The boxes are made in such a shape as to rest upon a pivotable bearing, that allows of the nicest adjustment, and in fact the shafting can be moved in six different directions, and be made absolutely accurate in line and bearing.

Adjoining the lathe room is one of the wood shops, where turning lathes, saws and planes hum and buzz pleasant music to the ears of all interested. The most noticeable machine in this room is a tire setter, with which two men set eighty rake wheel tiers per day. This machine, run by power, sets the heavy tiers on rakes, cold, condensing the fibres of the iron by a gradual process, "slow but sure," and giving any required "dish" to the wheels. It has proved such a valuable machine, doing the work so well without injury to the felloe, as in the common burning process, that a leading manufacturer at Gananoque, R. P. Colton, Esq., has commenced the construction and sale of them, taking his drawings from the one in use by Messrs. Cossitt & Bro.

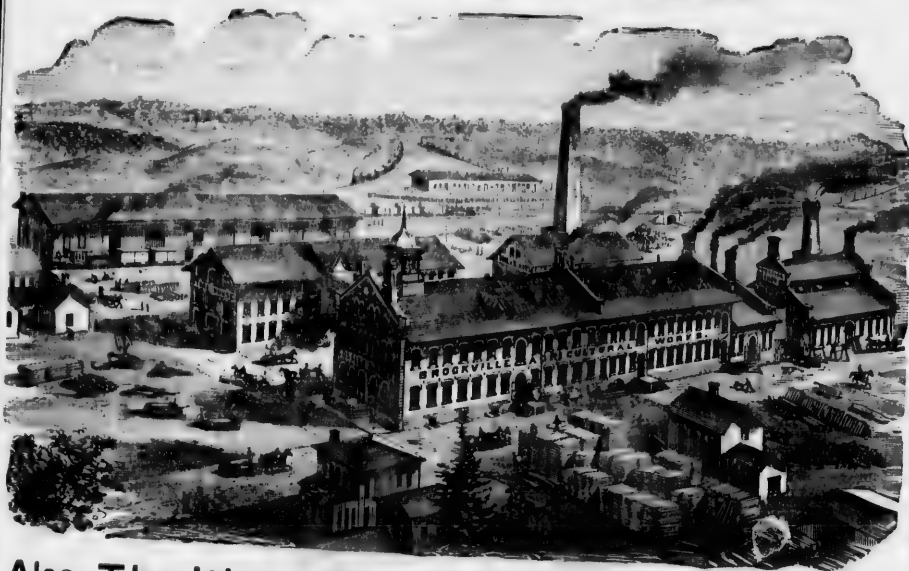
In one corner of this room, occupying a space seven by seventeen feet, is one of Otis' Patent Elevators, put in by the firm at an expense of nearly two thousand dollars. This elevator will hoist five tons at once, from cellar to garret, at a speed of forty feet a minute. It is large enough to receive one threshing machine on its platform, and from the well in which it works, landings are made into all adjoining rooms, and to the road outside. This elevator is an immense convenience, and on it we will ascend to the floor above. Going out into the main wood shop, a room as large as the lathe room beneath, we find a host of carpenters at work upon

**Brockville Agricultural Works.**

**G. M. COSSITT & BRO.,**  
MANUFACTURERS OF THE CELEBRATED

**Buckeye Mower**

**and SELF RAKE REAPER.**



**Also, The Ithaca Steel Tooth Horse Hay Rake,**  
**WITH COSSITT'S PATENT HORSE DUMPING LEVER. PAT. NOV. 16, 1873.**

Over 5,000 of these Rakes sold in the Dominion, last three Seasons. Entire satisfaction to all.  
First Prize Provincial Exhibition, Toronto, 1874; First Prize Provincial Exhibition, Ottawa, 1875;  
First Prize Provincial Exhibition, St. John, N.B., 1875, and at Twenty-five Local Fairs.

**Send for Circulars, also, one of the Rakes.**

The patent on this Rake is owned and controlled exclusively by us for the Dominion of Canada. All infringements will be prosecuted to the fullest extent of the law.

*Manufactory and Principal Office,*

*Branch Office and Warehouse,*

*BROCKVILLE, ONTARIO.*

*No. 92 Foundling St., near St. Ann's Market, MONTREAL, P.Q.*

Buckeyes, Threshing Machines, Ithaca Rakes, Reaper Platforms, &c. Nearest to us, the Buckeyes are being tested, by having a belt put on the driving wheel and the gearing run at a greater speed than ever it can be worked in the field. No machine leaves the works without being thoroughly examined in this practical manner, and for a length of time fully sufficient to prove its adjustment to be perfect. The cutter bars are attached, and the knives worked, the same as in the field. The great care manifested in this, is one secret of the success of their business, and the popularity their implements enjoy. Another reason is, that nothing but the best material is used in constructing every part of the various implements; the personal supervision of the firm is given to this, and every possible precaution taken to avoid the use of poor or imperfect stuff.

Next to the wood shop, and in front on the same floor, is the painters room fifty by one hundred feet in size, one of the finest rooms for the purpose that can be found in any manufactory in the Dominion. As is the wood shop, this room is fifteen feet high; it accommodates a very large number of machines, and the work can be done to the best advantage, the different coats being put on a room full at once. From the paint shop two inclined bridges run to the second and third storeys of the storehouse, where as fast as finished the machines are placed until wanted for shipment. This store house is located parallel to the main building, but distant, thirty feet; the building is one hundred and sixty feet long and thirty feet wide.

We have not yet said anything about the third storey of the main building which is used principally to store the hundreds of patterns owned by the firm. These patterns are valuable, as from them they can cast parts of any style of machine made by them during the last twenty-five years, and also an almost endless variety of mill gearing, of which they have constructed a large amount in the past; lately, however, their greatly increased mowing machine and rake trade has absorbed all their time and energies, and prevented the firm giving any attention to mill work.

A fine cellar under the building is divided into compartments for storing oil, nails and finished castings. Here lines of bins are ranged in long tiers, filled with the various parts of their machines; to and from this stock, boys are wheeling barrow loads either from the machine shop or to the different gangs of finishers up-stairs, the elevator coming into almost constant use to hoist or lower boys and barrows to the different localities.

Lastly, we have in the front end of the main building a storeroom for bolts, screws, nuts, sections, rivets, and the many small hardwares required in the construction of agricultural implements. A glass partition divides this room from the offices, one of which is devoted to the exclusive use of the book-keeper, and the other occupied by members of the firm and the general agent. Visitors, especially farmer friends, are always welcomed

in these office rooms, and if desirous of making a personal examination of the manufactory, will be conducted through, shown all that has been above described, and we think will go away satisfied that the reality is better than the description.

#### THE WARRIOR MOWER CO. OF CANADA.

The manufactory of the above Company is located at Prescott, Ont., a thriving town on the banks of the St. Lawrence, opposite Ogdensburg, N.Y. The Company was organized on the 3rd day of January, 1873, and obtained their charter from the Dominion Parliament on the 23rd day of May, in the same year.

It is a limited stock company with ample capital, and is doing a thriving business.

Jas. Irwin, Esq., (then Mayor of Prescott,) was elected President; Dr. W. H. Brouse, M.P., Vice-President; J. P. Wisser, Esq., Treasurer; Dr. E. A. Hulbert, Secretary; and L. H. Crandell, Esq., General Manager.

The manufactory is on the south side of Water street, and extends to the River, with convenient wharves for shipping by water, and is only three blocks from the Depots of the Grand Trunk and the St. Lawrence and Ottawa Railways.

The buildings are of stone, the first floor of main building being used for chipping and smoothing castings,—the emery wheels, grind stones, and various other machines being on this flat.

The second flat is for wood working machinery, adjoining which is the blacksmith shop with its powerful trip hammer, etc.

The third flat is occupied as a lathe room, with engine lathes, drilling and boring machines, bolt machinery, etc.

The fourth flat contains the painting and finishing rooms, where the final touches are put on and the machines sent to the storehouse. The different flats are connected by a steam elevator, and every available spot is made useful.

Adjoining the main building is the commodious foundry, and on the opposite side the engine house; near by are the store houses for lumber, and on the wharf a store house for machines, 125 x 60. Only the Warrior Mower and Randall Harrow are built at this establishment, and the Company claim to build more mowers than any other establishment in Canada.

five to thirty miles, in addition to being on the direct line of travel to the far famed Saguenay, Murray Bay, Kamouraska, Cacouna, Rimouski, Gaspe, and other noted watering places.

Quebec can minister abundantly to the tastes of those who like to yacht, fish, or shoot. Yachting, in fact, has become of late quite an institution.

Let us see what the city contains:—First, the west wing, built about 1789 by Governor Haldimand, to enlarge the old Chateau burnt down in January, 1834.

Is Superior to all others

See

R

Bramer's Patent.

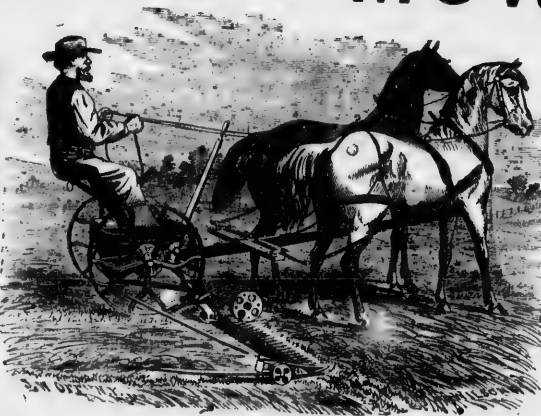
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JAMES

# THE WARRIOR MOWER!

**Is Superior to all others.**  
**IT HAS NO EXPOSED GEARING.**  
**IT HAS THE MOST PERFECT CUTTING APPARATUS AND IS CLOSELY GUARDED.**



IT IS THE LIGHTEST DRAFT, WITH NO SIDE DRAFT NOR WEIGHT ON HORSES' NECKS.  
 It has a Lifting and a Tilting Lever, and with its independent finger bar is the only Mower adapted to uneven or stony land.

**THOUSANDS OF THEM IN USE.**

*Send for Circular.*

## RANDALL PULVERIZING HARROW!

**Brammer's Patent.**

Price, \$25.00



**CULTIVATOR.**  
 It is the most thorough PULVERIZER known.  
 It is a complete

**It is the best HARROW in the World. Easy for the Driver! Light for the Team!**

This great improvement in Harrows does away with drags entirely, and substitutes a novel but far more rapid and efficient worker in their stead. "Time is money"—Therefore save time. "Labor Saved is Money Earned"—The Randall Harrow saves labor.

MANUFACTURED BY THE

**Warrior Mower Company of Canada,**  
**PRESCOTT, ONT.**

JAMES IRWIN, President.

L. H. CRANDELL, General Manager.

### T. CREVIER.

The stove factory of Mr. T. Crevier, Montreal, is one of the oldest established in the city, and its reputation for turning out first-class stoves extends throughout the Dominion, and is thoroughly well deserved. The factory was established in 1859, and is situated at 95 to 99 Craig street, Montreal. The buildings are of brick, two and a half storeys high, having a frontage of eighty feet on Craig street and a depth of one hundred and sixty feet on Voltigeurs street. The factory keeps about sixty men constantly employed, and uses a ten-horse power steam engine. Mr. Crevier has also a very handsome showroom at 539 Craig street, where a large and varied assortment of all goods in the stove line can always be found.

This mouldering pile, now used as the Normal School, is all that remains of the stately edifice of old, overhanging and facing the Cul-de-Sac, where the lordly Count de Frontenac held his quasi regal court in 1691; next, the Laval University, founded in 1854, conferring degrees under its royal charter; the course of studies is similar to that of the celebrated European University of Louvain; then there is the Quebec Seminary, erected by Bishop Laval, a Montmorency, in 1663; the Ursuline Convent, founded in 1636 by Madame de la Peltrie; this nunnery, with the R. C. Cathedral, which was built in 1646, contains many valuable paintings, which left France about 1789; the General Hospital, founded two centuries ago by Monseigneur de St. Vallier. In 1759, it was the chief hospital for the wounded and the dying during the memorable battle of the 13th September—Arnold and his Continentals found protection against the rigors of a Canadian winter behind its walls in 1775-6; the *Hôtel-Dieu* nunnery, close to Palace Gate, dating more than two hundred years back.

As to the views to be obtained from Durham Terrace, the Glacis and the Citadel, they are unique in grandeur, each street has its own familiar vista of the surrounding country. It is verily, as Henry Ward Beecher well expresses it, "like turning over the leaves of a picture-book."

The Montmorency Falls, a magnificent sight at almost all seasons of the year, are situated about nine miles from the city. Between them and Quebec is the Beaufort Lunatic Asylum, the largest and finest building of the kind in the Province. Many tourists and excursionists, after viewing the old northern capital, and its romantic and beautiful surroundings, will pursue the journey still further down the great St. Lawrence to that wonderful river the Saguenay, which enters the St. Lawrence one hundred and twenty miles below Quebec.

### MONTREAL TO OTTAWA.

The best route from Montreal to Ottawa, the Capital of the Dominion, is to take the train to Lachine, which leaves the Bonaventure street Depot every morning

(Sunday excepted) at seven o'clock, and there stepping on board the steamer *Prince of Wales* or steamer *Princess*, sail up the river. By this route we have a better opportunity of seeing the beautiful scenery of the St. Lawrence and Ottawa rivers as they first meet. It is a bright morning and the sun glances slantingly along the majestic waters, tinged with golden light the tips of the wavelets as they rise, one after the other, to greet his rays. A faint mist like a delicate veil, spreads over the bosom of the river, on which one or two islets repose, as childhood sleeps on its mother's bosom, yet it does not conceal the enchanting beauty of the scene, but adds grace and loveliness to the charms, which it vainly strives to hide. It is soon dissolved, and the light breeze which has sprung up, carries it all away.

Away we go, stemming the current, and in due time, we reach Ste. Anne's where are a succession of rapids which we avoid by going through a lock. More islets are here, round which the Ottawa bubbles and struggles in its course, while the pretty village of Ste. Anne's reposes in quiet beauty upon the bank. This village is considered the starting point for the Ottawa river, by all orthodox *voyageurs*, as the last church on the island of Montreal is situated here, and is, moreover, dedicated to their tutelary saint, from whom also the village takes its name. Emerging from the canal, again we enter the Ottawa, having left the St. Lawrence far astern, and after sailing about two miles, we find the shores recede on either hand, to about eight miles wide, and this recession continues for a distance of ten miles, for we are in the Lake of the Two Mountains, so called from two mountains on the north side rising four to five hundred feet from the water. The river divides here into four branches, that which we have just come up, another which diverges towards the north-east, and forms the western boundary of the island of Montreal, the third called the Dutchman's *Chenal*, and the fourth passing Vaudreuil around the Isle Perrot. There is the Isle Jesus, and beside it Pigeon's Island, on which are the ruins of an Indian village, also Isle aux Prunes. For the purpose of guarding against the incursions of the Indians, the French built a fort on the Island of Montreal, opposite to the village, but both village and fort have now fallen into decay, and large trees are growing inside the ruined walls of the latter. A few miles further on we arrive at a fine new wharf named Oka, situated in the Indian village of the Two Mountains. This village is inhabited by the remnants of two tribes, the Iroquois and the Algonquins, as the village of Caughnawaga, opposite to Lachine, is by a remnant of the Iroquois. Now we stop at the villages of Comoy and Hudson. Both these villages are the resort of some of our Montreal friends who pass the summer months there with their families. At the head of the Lake of the Two Mountains the banks contract, so that the river is not more than half a mile in width, and it continues thus narrow for about a mile, when there is again an expansion, for the length of nine miles, forming



# ST. MARY FOUNDRY.

99, CRAIG STREET, MONTREAL.

## T. CREVIER,

MANUFACTURER OF



# STOVES,

Hot Hair Furnaces,

Registers, Builders' Castings, Tinware Refrigerators,

*&c., &c., &c.*

ORDERS FOR TIN, SHEET & GALVANIZED IRON ROOFS.

REPAIRS PROMPTLY ATTENDED TO.

SAMPLE AND SALE ROOMS,

539 Craig Street and 97 Craig Street,  
FOUNDRY, 99 CRAIG STREET.



T. W. CURRIER & CO.,

Manufacturers of doors, sash, blinds, mouldings, were established in Ottawa in 1867.

This is the largest door, sash and blind factory in the Ottawa Valley, giving employment to over one hundred men, turning out over twelve thousand door and several thousand window blinds, and sashes during the year. Doing a business of over one hundred and fifty thousand dollars yearly. The factory is situated on Canal Basin. Their buildings are numerous, covering some ten acres of ground, using fifty-horse steam power. This factory is better supplied with all of the most approved machinery, for the manufacture of doors, sash, blinds and mouldings of every description, than any other house in the Ottawa Valley.

the Upper Lake of the Two Mountains. On the southern bank is the mountain Rigaud, where there is also a settlement of the same name. The river again contracts to the breadth of half a mile, and continues, sometimes broader, sometimes as narrow, until we reach Carillon. Great improvements have been made at this place by the Railway Company, by building new wharves and station houses, and here again the navigation is impeded by rapids. A railroad has been formed between the two stretches of navigable water, and by it we arrive at Grenville, whence we proceed by the Steamer Peerless or Queen Victoria, to Ottawa, which we reach about six o'clock p.m.

Yonder is a raft of wood coming floating down, manned by hardy *voyageurs*, who have built their wooden hut upon the timber Island they have made. Far back, in the thick and dark woods, they have joied through the inclemency of winter, gathering together the huge monarchs of the forest; far, far back, where the bears prowl, and the gaunt and hungry wolves "make night hideous" with their howlings; while the hardened snow has covered the ground many feet deep, and the frost spirit has

"Round the waters in icy chains  
By a spell unseen yet strong."

and the cold is keen, cutting, and piercing, such a cold as can only be felt when the thermometer ranges 30° or 40° below zero; in this wild scene, in this severe season they have toiled, felling the huge trees and fitting them for the market. And now, one by one, they have launched the logs, and fastening them strongly together, have committed them to the river to bear them down. They have sent them rushing crib after crib down the slides, which have borne them along and plunged them again safely into the dark deep water. Refastened, and their hut rebuilt and their low masts with broad square sails all arranged, there they go night and day, watching the floating treasure which serves them for a habitation, until they reach a market, where it is broken up and sold. Hardy, daring fellows are those *voyageurs*, simple

and kind withal. Though their manners are homely, their hearts are warm. Heaven speed them down the rapids to a safe arrival and a profitable sale of their hard earned produce.

Both from Grenville and Carillon and half way between them, are roads leading back into the mountains, for the great range commencing at Labrador and uniting with the Rocky Mountains runs through this country. The interior of this region is dotted everywhere with small lakes, which here and there form a variety to the scenery. In the township of Wentworth alone, there are upwards of sixty, plentifully stocked with red and grey trout, inviting the disciple of Isaac Walton to pursue his favourite amusement. Lake Lofisa, or Abbott's Lake, is perhaps most worthy of notice among them all, especially as it is more accessible than any. It is a beautiful sheet of water, clear as crystal, so that at the depth of twenty feet, the pebbles which show the bottom may be counted. It is surrounded by rocks and mountains, which here jut out far into the water, and there recede in indentations sometimes as deep as half a mile, forming pleasant little bays. The lake is about four miles long, by three in breadth, and is altogether the very fac simile of the largest of the lakes of the North of England. It is abundantly stocked with fish, principally the grey trout or Zunge. The Red trout is also found in it, but not so plentifully. To reach it, we start from Carillon in the train from Grenville, after engaging a buggy to meet us about four miles off. Then we proceed at right angles with the Railway, all the way through the Townships of Chatham, and a mile and a half into that of Wentworth. Here we are at Grenville on board the steamer, and traversing the waters of the Grand River, as the Ottawa is called; five miles from Grenville we stop at L'Orignal, where a stage awaits passengers going to the celebrated Caledonia Springs, a distance of some 9 miles through a very interesting country, giving some very picturesque views. The springs are much frequented by invalids during the summer months, for the sake of the mineral waters.

As we hurry on with the restless speed of steam, we have abundant opportunities of examining the picturesque banks of the river on both sides, until we come close up to the city.

About two miles below Ottawa, on the north side, the Gatineau empties itself into the Grand River. A few miles up this stream the Canada Iron Mining and Manufacturing Company have erected very extensive furnaces for the purpose of smelting the iron ore, from their Hull Mine. This is likely to be a very important branch of trade in the new Dominion. See yonder, that white curtain hanging over the steep bank on the south side. As we near it, it changes and we can see it is not a curtain, but a waterfall, being none other than the Rideau Falls. There it falls, gracefully as flowing drapery falls from the shoulders of a queen, a most beautiful sight. The body of water is not so large, and the height

# **T. W. CURRIER & CO.,**

MANUFACTURERS OF AND DEALERS IN

**DOORS, SASH, BLINDS, MOULDINGS,  
PLANED LUMBER,  
AND ALL KINDS OF  
WOOD BUILDING MATERIAL.**

## **IN STOCK:**

**Pine Lumber, Black Walnut, Birch.**

**Maple, Ash and Basswood,**

**(WELL SEASONED.)**

**Shingles, X, XX and XXX, Lath and Scantling,**

**BRIDGE AND BUILDING TIMBER CUT TO ORDER.**

## **ON SALE:**

**CLAPBOARDS, Grooved and Bevelled,**

**VERANDAH ROOFING,**

**Doors, Sash and Mouldings, common sizes,**

**FLOORING, 1, 1½, 1½ and 2 inch; BATTENS, Bevelled and Square; SHEETING, ½ and 1 inch,  
Tongued and Grooved-**

**BLINDS MADE TO ORDER.**

**CANAL BASIN, OTTAWA.**

**TURNING, SCROLL-SAWING, PLANING. &c.,**

**Done to Order with Neatness and Despatch.**

#### DOMINION BRASS WORKS.

The Dominion Brass Works, of which Messrs. Cuthbert & Son are proprietors, were established in 1866, at 101 and 103 Queen street, Montreal, and now give employment to about forty hands. The buildings are substantial stone structures two and a half storeys high, and thoroughly well fitted with all machinery and appliances for brass-founding, gas and steam fitting, plumbing, etc. A specialty is made of brass castings, heavy and light, which are promptly and satisfactorily done.

#### CURRIE BOILER WORKS.

The Currie Boiler Works, Naplanade street near Church, Toronto, of which Messrs. Neil, Currie & Co. are proprietors, were established in 1863, and are the largest boiler works in Toronto, covering more ground and giving constant employment to forty or fifty men, many of whom have been connected with the works from their commencement, as the firm believes that good work can only be turned out by good men, and that practised hands are better than greenhorns. The factory is well supplied with machinery of the newest and most approved kinds, and turns out work which is second to none in point of excellence.

of the fall, 30 feet, is not so great as to warrant the appellation grand, but what it wants in grandeur is amply made up in beauty. Gently, gracefully, the water pours over, and mingles with that of the Ottawa beneath, with just as much noise as is necessary to add to the effect. We obtain a fine view of it as the steamer passes close by. Looking ahead, we now get a splendid view of the Parliament and Departmental Buildings, standing out so prominently on the bluff called Major's Hill. These buildings only require to be visited to be appreciated. All we can say is go and see for yourself, dear reader. And now we reach Ottawa City, picturesquely built upon three separate bluffs or ledges forming the river bank of the south side. Right before us is an imposing scene, second only to Niagara in grandeur and magnificence. The Chaudiere Falls are immediately above the city, and there with thundering cadence, the waters precipitate themselves down the precipice of forty feet in height, and gathering into a basin, boil, and seethe, and hiss, and whirl around in mad excitement, while the spray arises and the sunbeams gleaming upon it form an almost perpetual rainbow. A fine bridge spans the river just below the Falls, from which a magnificent view of them is obtained. Beside the Grand Fall there is also Little Chaudiere on the northern side, and here a curious phenomenon presents itself. The great portion of the waters which precipitate down the latter, find their way underground where none can trace their course. The following description, quoted from Bouchette, will give us some idea of the singular scene. He says, "The Little Chaudiere may, without much difficulty, be approached

from the Lower Canada shore, and the spectator, standing on a level with the top of the Fall, and on the brink of the yawning gap into which the floods are headlong plunged, surveys the whole length of *chute*, and the depths of the cavern. A considerable portion of the waters of the Falls necessarily escapes subterraneously, after their precipitation, as a much greater volume is impelled over the rock that finds a visible issue. Indeed this fact is not peculiar to the Little Chaudiere, but is one of those curious characters of this part of the Ottawa of which other singular instances are observed; the waters in various places being swallowed by deep but narrow rents and fissures, leaving their natural bed almost dry, to dash on through some subterraneous passage that defies the search of the explorer. There are in the Falls of the Chaudiere materials for much geological speculation, and the mere admirer of nature's scenic wonders and magnificence will derive much gratification and delight by the survey and contemplation of their manifold beauties." On the northern bank, a slide has been made, so that the timber can be sent from above to below the foaming waters without endangering, either it being broken by abrupt and rude collision with kindred logs below, or shattered upon the rock. These slides are frequent in the Upper Ottawa, the rocky state of the river necessitating their construction; and they are admirably adapted, carrying down the logs of timber safely, and without any damage to prevent a sale in the market. But to return to the city.

#### OTTAWA,

Like Quebec, is divided into Upper and Lower Towns; although some make three divisions, adding the Middle, and perhaps this last division has the advantage of being more correct. The Upper Town, as its name implies, occupies the highest part of the rocky banks, and the Middle and Lower Towns are contented with a less elevated position. The Rideau Canal joins the Ottawa River, through a gorge between the towns by a succession of locks. This canal connects the Ottawa with Kingston and Lake Ontario, through a series of lakes and streams. It is 135 miles long and forms a triangle with the St. Lawrence and the Ottawa rivers. The Upper terminus is about 180 miles from Montreal while the Lower is 120 miles. A handsome bridge spans the gorge and forms a connection between the towns. As a city, Ottawa has perhaps the most beautiful and picturesque situation of any in the Province. Built beside the magnificent Chaudiere, upon a rocky elevation, commanding a fine view of the surrounding country, as far as the eye can reach, it is almost equal to Quebec itself. The fine far-stretching campaign, opened up to a great extent by hardy settlers who have cleared for themselves a home and farm, the villages nestling among the trees, the deep dark forests extending on either hand as yet apparently untroubled by the woodman's axe and the magnificent river, all command by turns the delighted attention, and call forth unmingled exclamations of pleasure. The city itself is well built,

# CURRIE BOILER WORKS,

These Works were Established in 1853.

## New and Second-Hand Boilers and Engines,

Upright and Horizontal, from Four to Forty Horse Power,

Turning Lathes, Drilling Machinery and other Machinery,

On hand and For Sale.

Boilers for Hot Houses and for Steaming Cattle Feed

A SPECIALTY.

ALSO

**MANUFACTURERS OF**

**Currie's Patent Foam Preventer and Fuel Saver.**

**NEIL CURRIE & CO.,**

*ESPLANADE STREET,*

**TORONTO, ONTARIO.**

## DOMINION BRASS WORKS,

101 & 103 QUEEN STREET,

**MONTREAL.**

**CUTHBERT & SON,**

Plumbers, Gas and Steam Fitters, Coppersmiths, Brass

Founders and Finishers, &c.

Manufacturers of all descriptions of

**Plumbers', Gas and Steamfitters' Goods.**

All Sorts of Heavy and Light Brass Castings made to order.

Orders for Anti-Friction Metal promptly executed.

#### 'ST. BONAVENTURE WORKS.

In 1864, Mr. J. A. I. Craig established these works at 471 to 483 St. Bonaventure street, Montreal. The buildings are of brick, three storeys in height, covering twenty-eight thousand feet of ground. This is the largest furniture factory in the city, giving employment to from one hundred to one hundred and twenty-five men during the year. The furniture manufactured here is of a superior quality, and is sold all over the Dominion. Fifty-horse steam power is used in the factory.

#### THE CANADA SCREW COMPANY

Was established in 1866. This is the only gimlet screw company in the Dominion. The buildings are built of brick, three storeys in height, giving employment to fifty or sixty hands. The factory is situated at Dundas, covering over one acre of ground. The Company turns out from five to seven hundred gross of gimlet screws per day, using thirty-five horse steam power, and is doing an extensive business all over the Dominion.

and the elevation of the ground has been taken advantage of to heighten the effect.

The County Buildings, several banks, good hotels, and churches of various denominations are situated here.

What the Rideau Canal does for Kingston, the Ottawa and Prescott Railroad does for Prescott—forms a connecting link with Ottawa City. This line is fifty-four miles in length, and connects at Prescott with the Grand Trunk Railway, and also, by means of a ferry, with Ogdensburg on the United States shore, whence a railroad extends as far as New York.

From Ottawa, many very pleasant excursions can be made into the country, both by stages and steamboats running to different parts, so that every facility is afforded for enjoying to the utmost extent the romantic scenes which abound on every side. The only difficulty one has is created by the want of time to go over the country thoroughly.

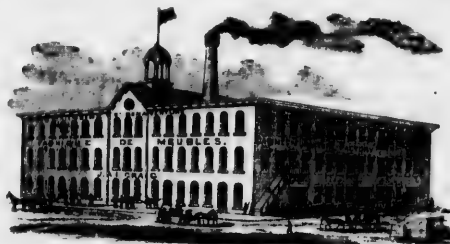
Looking at the Ottawa altogether, it is perhaps one of the finest and most picturesque of all the rivers of Canada; and when we consider that it drains a country of about 80,000 superficial miles, we cannot but think that many more years will not pass over, without a vast change for the better in the land. Clearances effected, and comfortable farms and dwellings erected on a soil abundantly fertile, with still a background of unlimited forest for the successful prosecution of the lumber trade; when we look at all these facts, the conclusion to which we must inevitably come is, that PROSPERITY is written in legible characters upon the broad expanse stretching around us. The establishment of the seat of Govern-

ment at Ottawa will also tend to open up the country, and the increase will be great.

#### TORONTO, FORMERLY YORK,

Capital of Ontario, and one of the most flourishing cities in the Dominion, is situated on a beautiful circular bay, on the N. W. shore of Lake Ontario, in York Co., 333 miles W.S.W. of Montreal, 161 miles from Kingston, 39 miles N. by E. of Hamilton, and 500 miles N.W. of Washington. Lat. 43° 49' 4" N., lon. 79° 71' 5" W. Mean temperature of the year 44° 4; winter 26° 4; summer 63° 8 Fahrenheit. The bay is entered by a narrow opening, and is separated from the lake by a low peninsula about 6 miles long, enclosing a beautiful basin 1½ mile in diameter, forming a safe and well sheltered harbor, capable of containing a large number of vessels. The peninsula is called Pleasure Island or Gibraltar Point, and is a favorite resort during the summer months. The site of the town is low, but rises gently from the water's edge,—the observatory being 105 feet above the Lake. The streets generally cross each other at right angles, some almost running parallel with the bay, and intersected by others which have a N. and S. direction, inclining slightly to the W., the whole forming nearly a parallelogram. The principal streets running E. and W. in the denser portions of the city are Front, King, Richmond, Adelaide and Queen streets; and of the cross streets, Yonge, Church, Bay, and York streets. King and Yonge streets are the thoroughfares, and contain the largest number of stores. The city generally is built of a light colored brick, of a soft, pleasing tint. The public buildings of the city are substantial in workmanship, and some of them beautiful in architectural design. Many of the stores, especially the wholesale stores, and private dwellings, are quite palatial in their outward aspect and interior structure. It is the seat of Law and Provincial Government, and the headquarters of the Educational Department of Ontario. The principal buildings in connection with these are Osgoode Hall, a fine classic structure, containing all the Superior Law Courts of the province; the Parliament buildings, of plain exterior, but with handsomely decorated and furnished legislative chamber, and well equipped Government offices; the Lieut.-Governor's residence, a princely mansion; the Normal School buildings, of Italian design, containing offices and depositories of the Council of Public Instruction; two model schools; one model grammar school and educational museum. There are several handsome common and grammar schools. In connection with higher education there is the University of Toronto, one of the finest buildings on the continent of America, and reckoned second to none on this side the Atlantic as a seat of learning. It is of Norman architecture in its principal features, with massive tower and richly sculptured doorway for its main entrance. It is beautifully situated at the western side of the Queen's Park, a noble public park for the recreation of the citizens, whose spacious avenues are ornamented with rows

J. A. I. CRAIG,



MANUFACTURER OF

**BEDROOM  $\equiv$  DINING ROOM FURNITURE,**

**&c., &c., &c., WHOLESALE,**

Nos. 473, 475, 477, 479, 481, 483 St. Bonaventure,

**MONTREAL.**

**CANADA**

*Screw Company's Works,*

**Main, Ogilvie and Hatt Streets,**

**DUNDAS, ONT.,**

**Manufacturers of Gimlet Pointed**

**SCREWS.**

ADDRESS,

**CANADA SCREW COMPANY,**

**Dundas Ont.**



### CHARLES CHILDS,

Manufacturer of boot and shoe lasts, dies for cutting sole leather, upper leather, envelopes, boxes, cuffs and pa- collars, also manufacturer of steel shanks for boot and shoes. The factory and office are situated at No. 1 Queen street, corner of Ottawa street, Montreal. This factory was established in 1866, and is the largest and only one of the kind of any note in the Dominion. The buildings are of bricks three storeys in height. From twenty-five to thirty men find employment in this enterprising establishment. Twenty-horse steam power is used in the factory.

### COWAN & BRITTON.

The nail and hinge factory of Messrs. Cowan & Britton, Gananoque, was established in 1861, and now employs a large number of hands. The factory is situated at the confluence of the Gananoque and St. Lawrence rivers, and the buildings, which are substantially built of brick, cover about half an acre of ground. This is the only hinge factory in the Dominion, and the quality turned out is very good. Pressed nails are also made a specialty and compare favorably with other factories.

of stately trees. In the centre of the Park, is a finely modelled and well executed bronze statue of Her Majesty Queen Victoria by Marshall Wood, England, and a short distance from this there is a monument, erected in honor of those Toronto Volunteers who sacrificed their lives in defense of their country during the first attempted invasion of Canada by the Fenians (1866.) Trinity College is another educational institution in connection with the Episcopalian Church; and there is also Knox College, for the theological training of students in connection with the Canada Presbyterian Church. The Upper Canada College is an extensive range of buildings and has a high repute as a grammar school and boarding school for boys. There are two schools of medicine in Toronto, each having an efficient staff of professors. There is also an ably conducted Veterinary College. The public institutions are numerous and many of the buildings appropriated for their purposes have striking features of architectural beauty. Amongst these may be enumerated the Lunatic Asylum, the Crystal Palace, for holding the Provincial Agricultural Exhibitions; the Boys' Home; the Girls' Home; the House of Providence; the Protestant Orphans' Home; the Custom House; the Government School of Technology; the new Post Office, a fine specimen of the Italian order of architecture.

The manufacturing interests of Toronto are varied. There are several extensive iron foundries and engineering establishments, railway car building shops, rolling mills, several breweries and a mammoth distillery, carriage factories, tanneries, soap works, spice mills, cabinet factories, one of which is the largest in the Dominion, car wheel works, machine shops of all kinds, pork packing establishments—one of these in appliances and arrange-

gements for killing and curing being modelled after the best Chicago houses—sewing machine, ash and door, and boot and shoe factories on an extensive scale. Besides these, many other varieties of manufacture and are carried on. Banking is well represented, there are thirteen Banks in the city, six of which have sprung out of the enterprise of Toronto merchants, and are doing a profitable business. These are, the Bank of Toronto, the Royal Canadian Bank, the Bank of Commerce, the Dominion Bank, the Federal Bank and the St. Lawrence Bank. The other seven have their head offices elsewhere and are branches of the Bank of Montreal, the Merchants Bank, the Ontario Bank, the Bank of British North America, the Quebec Bank, Molson's Bank and the City Bank. Insurance offices are numerous and their business extensive. The principal public halls are the St. Lawrence and Music Halls, with several minor ones, and a large one with a suite of rooms attached for the Young Men's Christian Association. There is also a Mechanics' Institute, with class rooms, reading room and library. Toronto contains 1 synagogue, and about 47 churches, of which 11 are church of England, 5 church of Rome, 6 Wesleyan Methodist, 8 Presbyterian, and the remainder divided among the Baptists, Congregationalists, New Connexion and Episcopal Methodists and other Dissenters. Among the churches most deserving of notice for their architectural merits are St. James' Cathedral (church of England), St. Michael's Cathedral (Roman Catholic), the Metropolitan Wesleyan Tabernacle, Knox, Holy Trinity and St. George's churches. There are in the vicinity of the city 4 burying grounds, being Potter's Field, containing 6 acres; the Toronto Necropolis, with fifteen acres; St. James Cemetery, with 65 acres—the latter 2 at the N.E. extremity of the city, and the former W. of Yonge street; and the Roman Catholic Cemetery, in Power street. Forty-one newspapers and periodicals are published in Toronto, viz., 4 daily, 15 weekly, 6 semi-monthly, 10 monthly, 1 quarterly, and 2 annually. The city is well supplied with water and is lighted with gas; and has an efficient fire brigade. Its fine harbor affords great facilities for an extensive traffic. Lines of steamers run daily during navigation to all the lake ports and ports on the River St. Lawrence. Five lines of railways run through the city—the Grand Trunk, Great Western, Northern, Toronto and Nipissing, and Toronto, Grey and Bruce. These railways connect at all seasons of the year with all places of importance on this continent. The value of real and personal property in Toronto for the years 1870, 1871, and 1872 was respectively, 1870 \$26,918,457; 1871, \$29,277,135; 1872, \$32,644,612. The total value of imports for 1872 was \$13,098,133; exports \$2,201,814. Pop. in 1817, 1,200; in 1830, 1,677; in 1842, 15,330; in 1845, 19,766; in 1862, 60,763; in 1861, 44,821; and in 1871, 66,092. Toronto was founded by Governor Simcoe in 1794. Parlia-

CHAS. CHILDS,

MANUFACTURER OF

*Boot and Shoe Lasts, Dies*

For Cutting Sole Leather, Upper Leather, Envelopes, Boxes, Cuffs,  
and Paper Collars.

ALSO, MANUFACTURER OF

**Steel Shanks for Boots & Shoes.**

No. 112 QUEEN STREET,

**MONTREAL, P.Q.**

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**COWAN & BRITTON,**

**GANANOQUE, ONTARIO.**

MANUFACTURERS OF

Patent Pressed Nails, Cut Nails, Clout, Trunk,  
Finishing, Zinc and Iron Shoe Nails,

**STRAP AND (T) HINGES,**

(Light and Heavy) Barn Door Hinges, Wrought Iron Washers, &c., &c.

Prices and Terms will always compare favourably with other Makers.

---

*Orders Solicited and Promptly Executed.*

---

We are prepared to Contract to Manufacture any quantity of Cut Nails  
on Commission.

### JOHN DOTY.

The Portable, Stationary and Marine Engine and Boiler Works of Mr. John Doty are situated at No. 2 Myles wharf, foot of Yonge street, Toronto. The works were established in 1851, and are fitted with all the modern improvements in machinery to secure first-class work, giving employment to about thirty hands. Mr. Doty makes a specialty of upright engines of from 1 to 10 horse power, as well as engines for steam yachts and tugs.

ment buildings were erected and the Legislature assembled there for the first time in 1797. In 1813, it was captured by the Americans, under General Pike, who was killed in storming the fort, but it was held only for a few days. Since that period the place has made steady progress, and has assumed considerable importance as a mart of trade and commerce. In 1834 it was incorporated a city, and its name changed from York to Toronto.

### CITY OF HAMILTON.

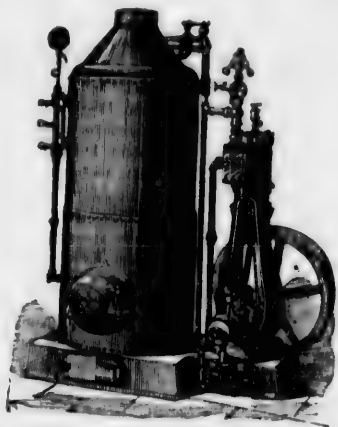
Hamilton lies on the south shore of Burlington Bay, at the western extremity of Lake Ontario. It covers a space about two miles in length of the level which reaches from the Lake shore to the mountain, and is about a mile and a half in width. Away to the east stretches a section which has gained a wide celebrity as one of the finest fruit countries in the world; to the south, west and north, lies a fine rich agricultural territory; and to the north-east stretch the broad blue waters of Lake Ontario, whitened with the swelling canvas of a thousand ships, and bearing upon their bosom the commerce of the two nations. The mountain is but the escarpment to the broad plateau of Western Ontario, worn down by the ceaseless dash of the waters of the ancient lake. It stretches away to the east, forming the precipices over which leap grandly the thundering Niagara and the dashing Genesee, and loses itself finally in the wild savagery of the Adirondacks. North west of the city are Burlington Heights, a tall wall of concrete, built up and cemented together by the action of the water, in the same way that Burlington Beach, which separates the Bay from the Lake, is now being compacted. On the Heights are still visible the breast-works thrown up during the war of 1812, whence issued the force under General Sheaffe, which fell upon Generals Winder and Chandler at Stoney Creek, captured them and routed their army. "Beautiful for situation," Hamilton has also many fine buildings, public and private; and the magnificent residences, surrounded by exquisitely kept grounds, in the outskirts of the city, have more than a usual celebrity.

The site of the City of Hamilton was originally covered with a dense growth of tall, coarse, serrated Indian grass. The land between the mountain and the bay consisted chiefly of deep ravines and patches of swamp, affording

a favorite haunt for rattlesnakes, which at one time abounded here, frogs and quail. The monotony of the immense patches of the Indian grass was relieved here and there by a tall water elm and close, low and almost impenetrable shrubbery, which formed a safe retreat for packs of wolves. On the plot now occupied as the Market Square there was a particularly dense growth of this thicket which was the rendezvous of wolves innumerable. When this part of Canada was first settled a deer trail extended over the brow of the mountain, past where the reservoir is now situated, to the bay. An Indian trail extended from the villages on the Grand River through the Dundas Valley down to the bay near the foot of Emerald street, near which the Indians had a burial mound, where it is probable their chiefs were interred. This mound was fifteen feet high and fifty in diameter. The sides were steep and there was a hollow in the top. It was covered with ashes and cinders about two feet deep, the remains of fires made to destroy the scent of the bodies and preserve them from the wolves. Though almost levelled now by nearly a century of cultivation the remains of this mound can still be traced. A large number of mortuary remains, flint, spear and arrow-heads, stone hatchets, wampum, pottery, etc., seems to indicate that this was the scene of a sanguinary conflict many years ago. This view is strengthened by a tradition among the Indians that a small tribe called the Attawandarouks was here completely destroyed.

In the year 1778 ROBERT LAND, who was born on the banks of the Delaware, and who sided with the British during the revolutionary war, settled on three hundred acres occupying the greater part of the east end of the city between the mountain and the bay. Previous to this he had located two hundred acres near Niagara Falls, but hearing that game was plentiful near the head of the lake he abandoned his first settlement for the Hamilton site, where he sowed the first wheat on an acre of ground, breaking up the land with hoes and harrowing it with brush loaded with stones. The dwelling was a log cabin, with an earthen floor, plastered with clay and roofed with birch bark, and the interstices were filled with a soft dense moss found in great plenty in the swamps. A fire place extended the whole length of the house. A stretched wolf skin, denuded of its hair, answered the purpose of the solitary window. Dried venison hung from the ceiling at all times, and the pioneer's trusty companion, the rifle, was carefully suspended, when not needed, over the fire place. This dwelling was a model one at the time, and in such the early settlers of the country reared their sturdy families, untrammelled by the dictates of fashion, and not at all envious of their neighbors. These primitive times, notwithstanding their many deprivations and vicissitudes, had a charm about them which the prosperity of succeeding years did not bestow, and we have heard many an old settler, surrounded by luxury, sigh over the memories, of "the good old days."

# JOHN DOTY,



Manufacturer of  
PORTABLE STATIONARY & MARINE  
*STEAM ENGINES & BOILERS.*  
UPRIGHT ENGINES AND BOILERS,

From one to ten Horse Power a Specialty.

Also, Engines for Steam Yachts and Tugs.

CIRCULARS SENT ON APPLICATION.

WORKS AND OFFICE,  
No. 2 MYLES' WHARF FOOT OF YONGE ST.,  
TORONTO, ONTARIO.

#### DIXON, SMITH & CO.

The leather belting factory of Messrs. Dixon, Smith & Co. was established in 1872. The factory and office are situated at 81 Colborne street, Toronto. The building is of brick, three storeys in height. The first floor is used as offices, store and stock rooms. The second floor is used for drying and manufacture of belting. The third floor is used as drying and stretching, &c. The basement is used for vats. The whole establishment is under the supervision of Mr. Smith, who has had some twenty years experience in the manufacture of belting. Messrs. Dixon, Smith & Co. were awarded the first prize at the provincial exhibition held in Ottawa in 1875, though placed in competition with belting made by Hoyt & Co., of New York, and other makers.

This is a distinction of which Messrs. Dixon, Smith & Co. ought to feel proud,—such enterprising firms should have the support of our manufacturing establishments who are in need of leather belting. The firm use steam power, and employ from ten to fifteen hands.

\*Mr. Land, the "first settler," as above mentioned, sided with the British in the American war. One night, while carrying despatches for his General, he was fired upon and struck down. He however succeeded in crawling on his hands and knees into the thicket, where he hid till morning. The same night the Indians burnt his cabin, and his wife and children escaping, traced his footsteps to where he had been wounded, and seeing blood, believed him to be dead, and followed the retreating army into New Brunswick. In the meantime Land, finding no trace of his family, went to "the Falls," and ultimately to the Bay. Seven years elapsed, and his wife and family left New Brunswick, and strangely decided on settling near Niagara. Hearing that a man of their name was settled near Burlington Bay, they travelled through the woods, and had the happiness of meeting with the long lost husband and father. For a long time after the arrival of Land very few settlers arrived. Immigrants preferred the high grounds of Ancaster and Barton. The Indian grass was hard to exterminate; rattlesnakes abounded and in the summer months mosquitoes proved a most formidable and intolerable plague, and the soil was not the best for agricultural purposes. Stoney Creek and Ancaster were places of considerable importance before Hamilton was more than a mere hamlet, yet it appears to have been a sort of rendezvous for the surrounding neighborhood. At a very early period a man named Smith built a tavern on the site of Charlton's vineyard works, corner of King and Wellington streets, and a lodge of Freemasons used to meet here as early as the year 1796. In 1796 a considerable number of settlers arrived, but the exact dates cannot be ascertained, but the following are the names of those occupying the site of Hamilton in 1812.

Abel Land occupied two hundred acres north of Barton and east of Wentworth streets. John Aikman oc-

cupied the next lot, and his log house stood near the corner of Burlington and King streets. Ephraim Land owned four hundred acres east of Wellington and south of Main streets. Robert Land's farm was north of King and east of Wellington streets, and his house stood on the south-east corner of Barton and William streets. Peter Ferguson, whose name is preserved in the avenue so called, owned two hundred acres east of Mary and north of King streets, his house was near the corner of Ferguson avenue and Robert streets. Nathaniel Hughson after whom Hughson street is named, owned two hundred acres east of Mary, west of Wellington and north of King. Captain Durand owned the only farm south of Main street, his house stood on John street. A man named Barnum kept a tavern on the north-east corner of James and King streets where Hamilton's drug store now stands, he also owned a farm extending from James to Merrick. Daniel Kirkendall owned a farm of two hundred acres north of King and west of Bay, his house stood above the hollow near the Great Western shops.

In 1814 William Sheldon opened the first store in the place. This was a frame building and stood on the corner of King and John streets. Black, Carpenter, Knight, and Shute, were the first cabinet makers, the factory of the latter stood where White's block now is on King Street. John Aikman was the first waggon maker and Edw. Jackson the first tinsmith. Their shops stood on the south side of the gore on King street. The first foundry, a stone building owned by McQuesten and Fisher, stood near the south-east corner of the gore. John Law kept the first district school which was situated on King street. The first blacksmith shop stood on the south-east corner of King and Ferguson avenue, and was occupied by Thomas Reynolds. Andrew Miller, locally known as "Yankee Miller" bought out Barnum after the war and kept the tavern for several years, until it was destroyed by fire. In those times the nearest saw mill was at Big Creek in Barton. In 1813 the site of the city was laid out in town lots by George Hamilton, who was at that time and for several years after member of parliament for Gore district. This gentleman was remarkable for his energy and public spirit and used every exertion to attract settlers to the locality, but not with very great success, for in 1830 it was still a small village. The future city was named in honor of Mr. Hamilton.

In 1823 an act was passed for the construction of the "Burlington Bay Canal," uniting Burlington Bay with Lake Ontario. This work gave a great impetus to the trade and general prosperity of Hamilton; warehouses, wharves, stores and dwellings were erected—vessels were constructed, and large numbers of workmen arrived. This canal was not completed till April, 1832, and Hamilton then became the head of navigation on Lake Ontario. The construction of Desjardins Canal, uniting Dundas with Burlington Bay, was chartered June, 1826, and for some time added materially to the prosperity of Hamilton.



DIXON, SMITH & CO.,



MANUFACTURERS OF

*Oak Tanned Leather Belting*

AND

**Fire Engine Hose.**

---

First Prize at the Provincial Exhibition at Ottawa, Sept., 1875.

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*From the "Mail," Oct. 2nd, 1875.—*

LEATHER BELTING.—We call attention of manufacturers and others using leather belting to the advertisement of Messrs. Dixon, Smith & Co., of this City. At the Provincial Exhibition held in Ottawa last week, the first prize was awarded to belting of their manufacture, though placed in competition with belting made by Messrs. J. B. Hoyt & Co., of New York, and other makers. This is a distinction of which Messrs. Dixon, Smith, & Co. may be proud, and may show the folly of people importing their belting from the United States when they can obtain an article equally good at a less price at home.

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**OFFICE AND FACTORY :**

**81 COLBORNE STREET,  
TORONTO.**



# DOMINION ORGAN COMPANY.

The Dominion Organ Company was established in 1872. The factory and office are situated on the corner of Wellington and Temperance streets, Bowmanville, Ontario. The buildings are of brick, four storeys in height, 110 feet front by 56 feet deep. The first floor is used for getting out stock in the rough, planing, sawing, &c. The second floor is used as case-room, ware-room and offices. The third floor is used as action and fly-finishing. There are also three turning rooms on this floor. The fourth floor is used as varnish and finishing room, flowing room, rubbing room and numerous other departments necessary for the manufacture of a first-class instrument. This enterprising firm is turning out from sixty-five to seventy organs a month, giving employment to some seventy hands, using twenty-five-horse steam power. In all, lumber yard and buildings, cover about two acres of ground.

In 1830 emigrants arriving here were obliged to depend upon farmers in the vicinity for the purchase of necessities. King street did not exist in those days. Main street was the chief thoroughfare. Peter Horning was at this time Pathmaster of the village, and his premises fronting on Main street, he was frequently solicited by immigrants wanting relief and shelter. To escape their importunities in some measure he had the road now known as King street opened out as the chief street of the village.

On the 12th of February, 1833, an act was passed, on account of the great increase in the population of the town, to define its limits, and to establish a market and police and town officers therein. The town of Hamilton was incorporated in 1833. In the preceding year (Friday, Nov. 16th,) a fire destroyed Miller's Hotel, the stores of Messrs. Ferguson and Co., and McNab, the post-office, Desjardins' Canal office, *Western Mercury* office and the dwelling house and shop of Mr. Scobie, which were consumed in less than three-quarters of an hour from the first appearance of the fire.

On the 12th of July, in the same year, the cholera reached Hamilton, and several citizens fell victims to this dread destroyer, and the prisoners in the jail were all liberated.

In the year 1836 the population of the town was 2,846, and the assessed value £44,020. In 1838 the population was 3,358, and the assessed value £52,130. On the 9th of June, 1846, an act was passed incorporating Hamilton as a city, the population having increased to 6,832 and the assessed value being £118,720.

For several years previous to 1856 the progress of the city was rapid and satisfactory. In that year the population was estimated at 27,500. Then however, came a season of depression. The young city became too ambitious; it undertook too much. It had invested largely in railways; it built magnificent water-works; it dug ex-

pensive sewers; it erected gas works; and the burden of debt which it brought upon itself was too much for its people to bear. Years of disaster followed; property fell in value; business decayed; the population decreased. In 1861 the Government Census Commissioners found but 19,096 souls here; and three years later the City Assessors reported but about 17,000. From this state of depression, however, the city rallied nobly; business revived, manufactures sprang up, and Hamilton once more entered the race with her sister cities for supremacy in Ontario. In 1871 her population was 25,726, and today it is 32,300; and her trade has more than kept pace with her progress in other respects. In 1850 her total exports were valued at \$352,892; in 1855 they had risen to \$1,718,344. In 1870 she shipped to the United States alone goods valued at more than two millions of Dollars; and the total exports for the fiscal year ending June, 30, 1875 were \$1,117,968; imports \$6,219,943; and the amount paid for duties was \$651,158,090. Total value of real property \$11,225,450, and personal property, \$2,670,000.

The first Court of General Quarter Sessions of the Peace for Gore District was held in Hamilton on the 12th of January, 1819. A bench of magistrates presided over this court, and the first was composed of James Crooks, chairman, George Hamilton, Richard Beasley, Richard Huff, Daniel O'Reilly, Wm. Ellis, John Chisholm, John Secord and James McBride. The earliest sentence recorded was passed at this session upon Joseph Cole, convicted of petty larceny. The unfortunate man was kept in jail for three months, and at midday, in the town of Hamilton, was publicly whipped with forty lashes, lacking one, on the bare back and then discharged.

The first jail and Court-house were situated on the site of McKee's hotel, John street. It consisted of a lower story of logs and the upper of frame, having an area of 20x30 feet, and was admirably adapted for keeping its inmates excessively uncomfortable, possessing only seven or eight apartments for prisoners. The upper story was used as a court room, and on Sabbath as a church, alternately by the Episcopalians and Presbyterians. In 1828 the buildings now used as a court room and county offices were erected at a cost of about \$30,000. About this time the first capital execution in Hamilton took place. A man named Vincent, convicted of wife murder, was hanged in the jail yard.

On the 4th of March, 1833, the first Board of Police was elected and consisted of Thomas Taylor, president; C. C. Ferrie, E. Stinson, J. Rolston, and P. H. Hamilton. In 1846 a police court was established, Captain George A. Armstrong, magistrate. In 1856 the Recorder's Court was established presided over by Mr. J. E. Start, Thomas Beasley, City Clerk and Recorder, this court was abolished in 1868. On the 17th of March (Auspicious day), 1863, Mr. James Cahill was appointed Police Magistrate, an office which he holds at the present day. The new jail on Barton street near Ferguson avenue, was begun in

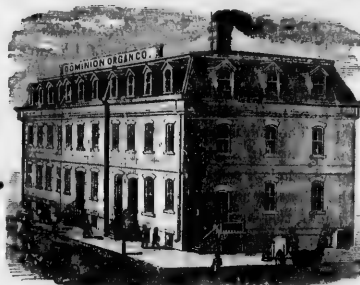
# DOMINION ORGAN CO'S

## IMPROVED AND REMODELLED

# CABINET & COMBINATION ORGANS!

EVERY INSTRUMENT

Fully Warranted.



PRE-EMINENT FOR

PURITY OF TONE.

This Company has recently been re-organized by the addition of three of the most practical men from the Factory of Clough & Warren Organ Co., Detroit, Mich., each taking an active part in his own particular department, and are now manufacturing an Organ EQUAL, and in many points SUPERIOR, to any manufactured in the United States or Canada.

We take pleasure in announcing to our customers and the trade generally that we have secured the right to manufacture and use, in the Dominion of Canada, the celebrated

## SCRIBNER PATENT QUALIFYING TUBES.

secured by Letters Patent in the United States, England and Canada. By means of this invention an organ containing two or three sets of reeds becomes equal in volume and power, and far superior in quality and brilliancy of tone, to an ordinary reed organ of six or eight sets of reeds.

Our celebrated "Vox Celeste," "Vox Humana," Wilcox Patent "Octave Coupler," "Cello" or "Clarinet" Stops, "Flugle Horn," "Dulcet," "Aoline," "Cremona," and Grand Organ Stop, and all the late improvements can be obtained only in these Organs.

**TWENTY-FIVE DIFFERENT STYLES!**  
FOR THE PARLOR AND THE CHURCH, THE BEST MATERIAL AND WORKMANSHIP  
QUALITY AND VOLUME OF TONE UNEQUALLED.

PRICES \$50 TO \$1,000.

Factory and Warerooms,

Cor. Temperance and Wellington Streets, BOWMANVILLE.

Agents wanted in every County. Send for Price List.

Address,

**Dominion Organ Co.,**  
**BOWMANVILLE, ONT.**

General Agents for Canada for the Celebrated BRADBURY PIANO.

## PHENIX FOUNDRY.

The Phoenix Foundry, London, Ontario, was established in 1850. As I called at Mr. Elliott's office and requested to inspect his manufacturing establishment in order to publish a description of it for the benefit of the farming community and those in need of agricultural implements, I was shown through by Mr. Elliott, and I would say that I was taken somewhat by surprise as I did not expect to find so large a manufacturing establishment in London as the one I am about to describe. The buildings have recently been erected by Mr. Elliott at a cost of \$25,000 not including machinery. They are two storeys in height, of white brick, and are a credit to Mr. Elliott and an ornament to the city of London. The buildings are admired by the traveller as he enters the depot of the Great Western R. R. The main building is situated on the corner of Wellington and Bathurst streets. It is two hundred feet front by forty feet deep. The moulding shop is 116 x 40. The blacksmiths' shop 60 x 40, with a steam hammer. The engine house and storehouses are two hundred by twenty-six, and other buildings too numerous to mention, the works covering about two acres of ground. There is a steam hoist in the centre of the main building which is used for the removal of material and in the shipping of agricultural implements. A steam engine of sixty-horse power is used here, and the agricultural implements manufactured by Mr. Elliott are shipped to all parts of the Dominion. He is doing an extensive trade, turning out some thousands of reaping and mowing machines, ploughs, cutting boxes, drills, hay rakes, etc., during the year, and giving employment to nearly one hundred hands. In fact this is one of the most complete establishments we have visited in the Dominion.

1873 and completed in 1875, at a cost of about \$40,000, and Mr. John Henery who had previously worthily held the position of Chief of Police was appointed governor.

In 1847 the first Council of the City of Hamilton was elected and the following gentlemen had the honor of being its representatives; Colin C. Ferrie, *Mayor*; Alex. Carpenter, Charles O. Counsell, N. Ford, L. B. Freeman, D. C. Gunn, David Kelly, Andrew Miller, Samuel Mills, H. R. O'Reilly, and H. B. Willson.

The city sends two members to the federal Parliament and one to the Provincial. The former at present are, Æmilus Irving, Q. C., and Mr. A. T. Wood. Mr. J. M. Williams is the local representative.

### CITY COUNCIL, 1876.

Regular meetings every alternate Monday at 7:30 p.m.  
George Roach, Mayor.

*Ward 1.* Francis E. Kilvert, James Matthews, Robert R. Morgan. *Ward 2.* T. Crooker, M. D., J. G. O'Reilly, R. R. Waddell. *Ward 3.* R. Campbell, Chas. Foster, Thomas Mitchell. *Ward 4.* Kenney Fitzpatrick, Joseph Kent, Christopher Lockman. *Ward 5.* Robert

Chisholm, Charles Lee, William Magee. *Ward 6.* John Barr, Nelson Humphrey, Patrick Crawford. *Ward 7.* John Field, David McLellan, Thomas Allen.

### COMMITTEES.

*Board of Works*—Aldermen Field, chairman, Matthews, Waddell, Mitchell, Kent, Magee and Humphrey.

*Market Fire and Police*—Aldermen Kent, chairman, Mathews, O'Reilly, Mitchell, Lee, Barr and Field.

*Hospital and Cemetery*—Aldermen Crooker, chairman, Morgan, Campbell, Fitzpatrick, Magee, Crawford and Allen.

*Jail*—Aldermen O'Reilly, chairman, Kilvert, Mitchell, Lockman, Magee, Humphrey and Field.

*Water Works*—Aldermen Kilvert, chairman, O'Reilly, Campbell, Lockman, Lee, Crawford and Allen.

*Board of Health*—Aldermen Crooker, chairman, Morgan, Foster, Kent, Lee, Humphrey and D. McLellan.

*Parks*—Aldermen Waddell, chairman, Kilvert, Foster, Lockman, Chisholm, Crawford and Allen.

*Finance*—Aldermen Fitzpatrick, chairman, Morgan, Crooker, Foster, Chisholm, Barr, and D. McLellan.

### OFFICERS OF THE CORPORATION.

*Police Magistrate*—James Cahill. *City Clerk*—Thos. Beasley. *City Treasurer*—Alexander Stuart. *High Bailiff*—James McCracken. *Licensee Inspector*—John Moore. *Manager of Water Works*—William Haskins. *Tax Collector*—James Cummings. *Chief of Police*—Matthew Logan. *City Messenger*—Chas. Smith. *Hospital Physician*—Jas. White, M.D.

### SCHOOL TRUSTEES.

*Public School*—A. Macallum, M.A., Inspector.

*Ward 1*—Jas. Cummings, B. J. Morgan. *Ward 2*—P. C. Blaicher, S. H. Ghent. *Ward 3*—J. Osborne, J. W. Bickle. *Ward 4*—J. Fielding, William Clucas. *Ward 5*—J. W. Harris, A. M. Ross. *Ward 6*—Geo. Coumbe, Joseph Greenfield. *Ward 7*—W. G. Reid, J. M. Meakins.

### COLLEGIATE INSTITUTE.

George Dickson, M.A., Principal, F. W. Fearman, Thomas White, M.D., John Field, J. M. Gibson, Hugh Murray, J. B. Eager.

### COUNTY OF WENTWORTH COUNCIL 1876.

F. M. Carpenter, Warden.

*Barton*—Thomas Lawry, Reeve; John W. Kerr, Deputy Reeve; S. P. Stipe, Robert Beasley, Wm Hill.

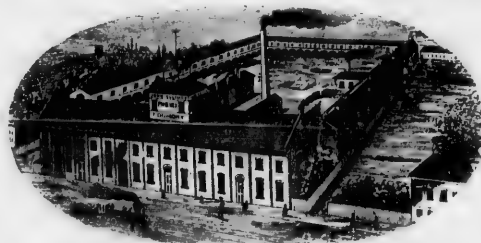
*Binbrook*—Jas Hoey, Reeve; John McGann, John Ramsay, James Muir.

*Ancaster*—Alonzo Egleston, Reeve; John Forbes, Deputy Reeve; Henry Binkley, 2nd Deputy Reeve; James Gibson, Daniel Shaver, Samuel Olmstead.

*Beverly*—Peter Wood, Reeve; Wm. Menzies, Deputy Reeve; James Smith, Samuel Patterson, Emerson Clement.

*East Flamboro*—A. Brown, Reeve; Thos. Attridge, Deputy Reeve; Chas. Foster, Jas. Sullivan, Jas. Harn.

# PHOENIX FOUNDRY.



## JOHN ELLIOTT,

MANUFACTURER OF THE

Celebrated "Meadow Lark" and Ball Buckeye

### REAPING AND MOWING MACHINES,

SINGLE AND COMBINED:

Also, Drills, Broad Cast Seeders, Cultivators, Gang Ploughs,  
Fodder Cutters, Sulkey Hay Rakes, Sulkey Ploughs,

### AND SINGLE AND TWO HORSE PLOUGHS,

with Wrought Beam, Steel Mouldboard, and Wrought Iron and Steel  
Shears or made from Diamond Iron.

### TURNINGS AND BUILDING MATERIAL,

Made to order.

Corner of Wellington and Bathurst Streets.  
**LONDON, ONTARIO.**

ESTABLISHED IN 1850.

### G. & J. ESPLIN.

The factory of Messrs. G. & J. Esplin, manufacturers of boxes of every description, was established in 1848. The factory and office is situated at Nos. 111 to 115 Duke street. The buildings are of brick, three storeys in height, 100 feet square, giving employment to seventy-five men using fifty-horse steam power. This is the largest packing-box factory in Montreal. The firm also deal extensively in lumber, and have in connection with their box factory both saw and planing mills.

### EXPRESS MILLS.

The Express Flour and Grist Mills were established in 1861, by Mr. William Mack on the Cornwall Canal in the town of Cornwall, and is now a very important industry of the town, running night and day, and employing ten hands.

### JOHN FEE,

Machinist, established in 1871. The factory and office are situated at No. 7 canal side, St. Gabriel Locks, Montreal. The buildings are of stone and brick, two storeys in height, employing fifteen men, using steam power.

*West Flamboro.*—J. Browne, Reeve; Wm. Attridge, Deputy Reeve.

*Glanford.*—Dr. Bethune, Reeve; Robert Leeming, C.D. Potts, George Bell, W. Smith.

*Saltfleet.*—F. M. Carpenter, Reeve; Timothy Kennedy, Deputy Reeve; John R. Jardine, Henry R. Wilson, P. Reid, jun.

*Dundas (Town).*—Mayor, Thomas Wilson; Reeve, John Bertram; Deputy Reeve, John Wilson. Councillors—Valley Ward, John Hayes, Jas. Mercer, Thomas Partner; Foundry Ward, W. Casey, Walter Bastable, Daniel Fields, jun.; Mountain Ward, H. C. Gwyn, Duncan McMillan, Alex. Urquhart; Canal Ward, A. H. Walker, A. S. Wink, B. Lucas.

### COUNTY OFFICERS.

Hon. A. McKellar, Sheriff; B. B. Osler, Clerk of Peace and County Attorney; G. S. Counsell, County Clerk; James Kirkpatrick, Treasurer; S. H. Ghent, Clerk County Court and Deputy Clerk of the Crown; Geo. Rolph, Registrar of Surrogate Court; F. M. Carpenter, Warden.

*Sheriff's Office.*—County building, Hon. A. McKellar, Sheriff; D. A. McNab, Deputy Sheriff, MacPherson; managing clerk; E. Service, Head Bailiff.

### POLICE.

James Cahill, Police Magistrate.

*Commissioners.*—The Mayor, County Judge and Police Magistrate. The force consists of a chief, two sergeants, two detectives and twenty-seven patrolmen. Matthew Logan, chief.

*City Assessors.*—Ward No. 1, Robert Ellicott; No. 2, Henry Lavery; No. 3, Peter Balfour; No. 4, William

Sharp; No. 5, John S. Henderson; No. 6, James Tindill; No. 7, Geo. C. Secord.

### FIRE BRIGADE.

James Amor, Chief Engineer.

No. 1 *Phoenix Hose*.—Daniel McBrien, Captain; Robert Blair, Secretary; and thirteen members.

No. 2 *Protection Hose*.—E. W. Watson, Captain; Thomas Bensley, Secretary; and thirteen members.

No. 3 *Hose Co.*—C. Wilson, Captain; Wm. Bruce, Secretary, and thirteen members.

No. 4 *Neptune Hose*.—Wm. Robbins, Captain; Samuel Robbins, Secretary; and fourteen members.

*Hook and Ladder Co.*—E. Moran, Captain; B. Snyder, Secretary; and seventeen members.

The veterans of the force are: Edw. Willett, who joined in May, 1863; J. Bridges, April, 1865; W. Porter, August, 1868; James Amor, April, 1859; David McBrien June, 1859; Robert Blair, July, 1859; and S. Robbins, June, 1861.

### HAMILTON WATER WORKS.

William Haskins, Chief engineer.

#### Office City Buildings.

The Hamilton Water Works were incorporated April 20th, 1866, by act of parliament, and are erected about 250 yards from Lake Ontario. These works are superior to any other in the Dominion, excepting those of Montreal. Their total cost was \$386,000; and there are now (1876) upwards of fifty miles of pipe laid in the city. The machinery is complete and perfect. The power consists of two double cylinder engines of one hundred horse power each and the supply amounts to about 800,000 gallons a day of 11 hours. The reservoir, three and a half miles from the works, is 185 feet above the level of the lake. It is 25 feet deep and will contain nine millions imperial gallons. The water from lake Ontario is filtered through 31 feet of sand. The power required to force the water into the reservoir is equal to  $5\frac{1}{2}$  tons to the square foot on the main pipe which has an inside diameter of 18 inches and is only one inch thick.

### HAMILTON POST OFFICE.

H. N. Case, postmaster; Henry Colbeck, ass't postmaster; Alfred Crisp, chief forwarding clerk; N. A. Eager, registration and foreign mail clerk; J. B. Eager, accountant and foreign mail clerk; Geo. H. Armstrong, chief wicket clerk; Thos. Burns, money order and savings' bank; Geo. H. Bull, ass't do; Robert Kelly, registration and foreign mail clerk; Thos. Harbottle, A. C. Crisp, J. C. Dempsey, J. S. Matthews, E. H. Dunnet, B. F. Barber, W. E. Gayfer, Geo. Ross, Wm. Ecclestone, Henry Dinase, David Welch, clerks.

*Letter Carriers.*—Benj. Dunnett, chief superintendent; T. B. S. Austin, John Catchpole, J. H. Fearnside, Geo. Flook, John Gore, Henry Linton, F. McCauley, Miles Spring, H. F. Young.

*Letter Boxes* are placed at the corners of the following

G. & J. ESPLIN,  
**Lumber Merchants and Box Manufacturers**  
SAW AND PLANING MILLS,  
111 & 115 DUKE STREET,  
MONTREAL.

---

EXPRESS MILLS,  
**WILLIAM MACK,**  
CORNWALL, ONT.

---

**P. K. DEDERICK COMPANY,**  
Proprietors and Sole Manufacturers of the  
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**JOHN FEE,**  
**MACHINIST AND MANUFACTURER**  
Of Wood Working and other Machines,  
NO. 7 CANAL SIDE ST. GABRIEL LOCKS,  
**MONTREAL.**  
**FEE'S PATENT GIG SAWS ALWAYS ON HAND.**



#### FLACK & VAN ARSDALE.

The factory of these extensive manufacturers of, and dealers in stone, and Rockingham ware, is situated in Cornwall, Ont., and was established in 1860. Since then their business has grown steadily and greatly increased, so that they now employ a large number of hands, and their goods are well and favorably known through the length and breadth of the Dominion. They have a very large and varied stock, and dealers would do well to send for a circular before purchasing elsewhere.

#### R. FORSYTH.

The very extensive marble works of Mr. R. Forsyth, Montreal, were established in 1864, and now give employment to about one hundred hands. The factory is situated on the Lachine Canal, at St. Gabriel Locks, and is a fine stone building, three storeys high, devoted to sawing, cutting and polishing marble for monuments, &c. A new wing, three storeys high, one hundred and ten feet long, by thirty seven deep, has lately been added. This new department is used for the preparation of granite, which is taken from Mr. Forsyth's quarry at Gananoque, and which is judged to be equal, if not superior to Scotch granite. The blacksmith shop is fifteen feet by twenty-five feet. In the yard is the travelling train for conveying large blocks of stone; it is two hundred and twenty feet long, with a span of thirty-six feet, and a hoisting capacity of twenty tons at once. The establishment occupies about two acres of ground and fifty horse water power is used. The office and show room is a two storey brick building, No. 130 Bleury Street, where a fine display of monuments, mantels and other marble and stone work can be seen.

#### NOVELTY WORKS.

The Novelty Works, 173 and 175 James street, Hamilton, were established in 1872, and under the able management of Mr. A. W. Forster have made a rapid success, their goods being already introduced and favorably considered in all parts of the Dominion. The factory furnishes employment for about twenty hands. Mr. Forster makes specialties of Boiler Purgers Vacuum Lubricators, Flue cleaners and automatic steam traps.

streets: James and Hannah, Bay and Bol, Queen and Main, York and Locke, York and Bay, Jame. and Picton, James and Murray, Barton and Catharine, King and Wellington, John and Main, and James and Maria.

#### HAMILTON BOARD OF TRADE.

W. E. Sanford, President; W. F. Findlay, Vice-President; E. Hilton, Secretary.

Council.—Hon. I. Buchanan, J. I. McKenzie, Wm. McGiverin, E. Gurney, J. Walker, A. Harvey, W. E. Sanford, J. Billings, A. Winer, Adam Brown, A. McInnes, S. E. Gregory, B. E. Charlton, W. F. Findlay, J. Stuart,

C. Cameron, A. Turner, J. M. Williams, M. P.P., A. T. Wood, M. P., Adam Hope, J. McPherson, M. McPherson, W. H. Gillard, J. Watson, Dennis Moore, John Park, A. Thompson, and Wm. Hendrie

Board of Arbitration.—R. A. Lucas, J. Field, J. Simpson, J. Bowes, A. Gartshore, J. W. Murton, T. C. Kerr, N. M. Livingstone, W. H. Gillard, C. J. Hope and M. Leggat.

#### CUSTOMS.

Custom House, Stuart Street.

W. H. Kittson, collector; W. Agnew, appraiser; C. R. M. Sewell, surveyor; F. Shepherd, H. W. Woodward, John Briss, clerks; H. Dixon, chief landing waiter; C. M. Kelly, W. Munday, J. McKinty, P. O. Heir, landing waiters; A. I. McKenzie, chief clerk; T. Bryan, sub-collector, Galt; J. Miller, sub-collector, Wellington Square; J. Logan, porter.

#### INLAND REVENUE.

Custom House, Stuart Street.

Wm. Patton, collector; S. F. Ross, deputy do; J. Stewart, A. Stuart, W. P. Crawford, J. F. Jagoe, A. D. Arnot, W. F. Miller, J. K. Barrett, excise officers.

#### CHURCHES.

##### CHURCH OF ENGLAND.

*Christ Church*, James Street, north.—Cathedral of the Diocese of Niagara, Rt. Rev. T. B. Fuller, D. D., Lord Bishop; The Very Rev. J. Gamble Geddes, D. C. L., Dean of Niagara, rector; Rev R. G. Sutherland, M. A., curate; Col. Villers, James M. Lottridge, church wardens; Wm. Fairclough, organist; J. J. Mason, vestry clerk; Geo. Robinson, choir master; Joseph Cressell, sexton; Charles Barrett, bell ringer.

Hours of service: 11 a. m. and 7 p. m. Christ Church was founded in 1835 and has had but one rector up to the present time—the Rev. G. Gamble Geddes, D. C. L., now the Very Rev. the Dean of Niagara. The original edifice which was of wood was commenced in 1835, and completed in 1838. It was enlarged in 1854 by the erection of a chancel and two compartments of the nave in stone, these were designed to form the commencement of an entirely new structure of a higher style of architecture. This latter is now drawing near completion, the old building having been pulled down about two years ago. Since the formation of the new Diocese of Niagara, Christ Church has been constituted a Cathedral church, and will be provided with a Bishop's throne and suitable stalls for the Dean, Archdeacons and six canons.

*The Church of the Ascension*.—The foundation stone of this church was laid on Ascension day, 1850, and on a site given by the late Richard Jason, Esq. It was opened for divine worship in June, 1851. The Rev. John Hebdon, M. A., canon of Christ Church Cathedral, having been appointed rector of the parish, by the late Bishop of Toronto. The structure was completed by the erection of its spire, pinnacles, &c., last year (1875), at the

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MANUFACTURER OF

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BRANCHES.—TORONTO, 80 King Street.

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MILLS, St. Gabriel Locks, 552 William Street,

OFFICE, 130 Bleury, Corner of Dorchester Street, Montreal.

**NOVELTY WORKS,**

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**NOVELTY WORKS.**

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**OXIDIZING GILDING IN PART, &c.,**

**173 & 175 James Street, North, HAMILTON, Ontario.**

sole expense of Mrs. Juson, widow of R. Juson Esq., now in Shrewsbury, England. Services: 11 a. m. and 7 p. m.

Church Wardens.—Messrs. R. P. Street and J. M. Burns; delegates to the Synod, F. W. Gates, Adam Brown and Alex Bruce; vestry clerk, J. D. Pringle.

*All Saints Church*.—Cor King and Queen streets.—This church forms part of the parish of Christ church. It was built by the late Hon. Samuel Mills, in 1870, at his own expense and given to the rectors of Christ Church during his life time on incumbency. Very Rev. Dean J. Gamble Geldes, D. C. L., rector.

Services: 11 a. m. and 7 p. m.

*St. Thomas' Church*.—Cor Main and West Avenue.—Rev. J. B. Richardson, M. A., rector.

Services: 11 a. m. and 7 p. m.

*St. John's Mission Chapel*.—Rev. W. Lumsden, M. A. Services: 11 a. m. and 7 p. m.

#### PRESBYTERIAN CHURCHES.

Hours of service 11 a. m. and 7 p. m.

*Central Church*, cor. Maiden Lane and McNab streets.—Pastor, Rev. John McColl.

*McNab Street Church*, cor. Hunter and McNab streets.—Pastor, Rev. Donald H. Fletcher.

*St. Paul's Church*, cor. James and Maiden Lane.—Pastor, Rev. J. C. Smith, M.A.

*Knox Church*, corner Cannon and James streets.

*St. Andrew's Church*, cor. Park and Hunter street.—Pastorate vacant.

*St. John's Church*, cor. King and Emerald streets.—Pastor, Rev. James Little.

*Mission Church*.—Pearl street.

#### METHODIST CHURCHES.

Hours of service, 11 a. m. and 7 p. m., except otherwise stated. Sunday school 2.30 p. m.

*Centenary Church*, Main street west.—Rev. Hugh Johnston, B. D., Pastor.

*Wesley Church*, John street, cor. of Rebecca.—Rev. Wm. Stephenson, Pastor.

*First Methodist Church*, King st., East.—Rev. W. W. Carson, Pastor.

*Zion Tabernacle*, Pearl street.—Rev. J. Hannon, Pastor.

*Simcoe Street Church*.—Rev. J. P. Lewis, Pastor.

*German Methodist Church*, Rebecca Street.—Rev. C. S. Eby, Pastor.

*Hannah Street Church*.—Under the superintendence of Rev. H. Johnston.

*Primitive Methodist Church*, Gore cor. Hughson street.—Rev. W. Herridge, pastor. Hours of service, 11 a. m. and 6.30 p. m.

*Primitive Methodist Church*, Queen corner Napier. No settled pastor at present. Hours of service, 11 a. m. and 6.30 p. m.

*Methodist Episcopal*, John Street.—Rev. J. S. Williamson, pastor. Hours of service, 10.30 a. m. and 6.30 p. m. Sabbath School at 2.30 p. m.

#### BAPTIST CHURCHES.

The Baptist cause was first established in the city of Hamilton about the year 1842, by the late lamented Rev. A. Booker, through whose instrumentality the first chapel on Park street was built. Mr. Booker was killed at the Desjardines canal accident in 1857. Since his time the chapel has been twice enlarged. Among the pastors have been Rev. Dr. Crawford, now a professor in the Canadian Literary Institute, Woodstock; and Rev. George Richardson, Port Hope. The present pastor, Rev. Wm. Stewart, M.A., settled in April, 1874, since which time the membership of the church has been greatly increased.

*Park Street Baptist Church*.—Rev. Wm. Stewart, M.A. Hours of service, 11 a. m. and 7 p. m. Weekly prayer meetings every Thursday, evening at a quarter to eight o'clock. Sabbath school at 2.30 p. m. This church has two Mission Sabbath schools, one on Wentworth street and the other near the south western line of the city.

*Baptist Church*, (Colored) McNab st.—Hours of service, 10.30 a. m. and 6.30 p. m. The late pastor, Rev. J. W. Collins, has recently removed to Buffalo.

*Baptist Mission Church*, Wentworth St.—Mr. Joseph Deuchfield, missionary. Sabbath school 2.30 p.m. Preaching service every Thursday at 7 p. m., weekly prayer meetings every Wednesday evening at a quarter to eight o'clock.

#### ROMAN CATHOLIC CHURCHES.

*St. Mary's Church*, corner Park and Sheaffe streets.—Pro. Cathedral, right rev. P. F. Crinnon, D.D., Bishop of Hamilton; very rev. E. J. Heenan, vicar general of Hamilton; rev. P. Lennon, secretary; rev. Wm. Brennan, rev. P. Maddigan, rev. P. O'Connell. Hours of service, 1st mass 7.30 a.m.; high mass. 10.30 a.m.; vespers 7.30 p. m. in summer 7 p. m. in winter. Mass every day at 7 a. m. in summer, 7.30 a. m. in winter. Corner Park and Sheaffe streets.

*St. Patrick's Chapel*, Hunter corner Cherry.—Mass 7.30 a. m. on Sunday, attended by a priest from the Cathedral.

*St. Joseph's Church*, cor. Charles and Maiden Lane.—Rev. J. H. Moubia, Mass 10 a. m. Sundays: vespers 4 p. m.

#### CONGREGATIONAL AND OTHER CHURCHES.

*Congregational Church*, Hughson street.—Rev. H. Saunders, pastor. Hours of service, 11 a.m. and 7 p.m.

*Evangelical Association*.—Rev. F. Herlan, pastor. Hours of service, 10.20 a.m. and 7 p.m. Sabbath school at 2 p.m.

*Evangelical Lutheran Congregation*.—Rev. Frederick Spade, pastor. Hours of service, 10.30 a.m. and 7 p.m. Sabbath school at 2 p.m.

*The Christadelphian Synagogue*.—Main Street. Services at 3 and 7 p.m. Public Bible class every Wednesday at 8 p.m.

*Plymouth Brethren*.—Meet at their hall McNab street,

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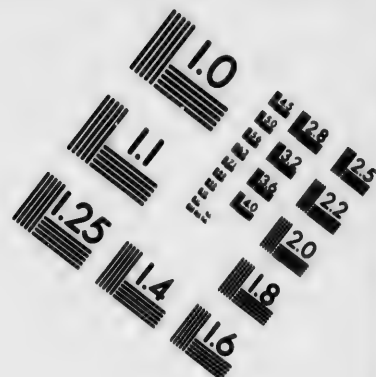
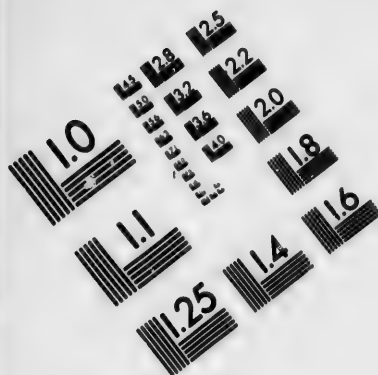
The well-earned reputation of our Scales has induced the makers of imperfect and worthless balances to offer them as "Fairbanks' Scales," and purchasers have thereby, in many instances, been subjected to fraud and imposition.

**We have no Controversy with Honorable Competitors,  
But it becomes our duty to expose Fraud.**

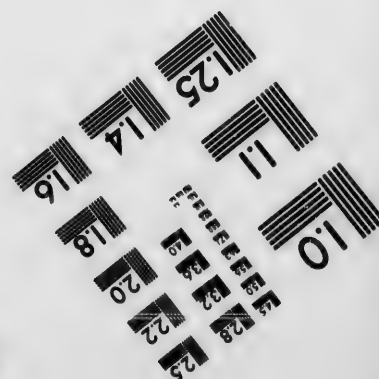
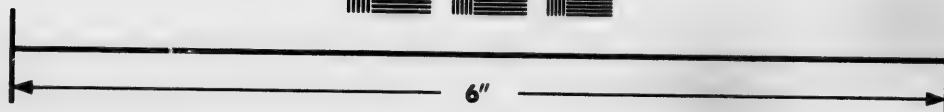
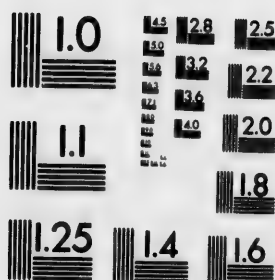
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FAIRBANKS'  
**STANDARD SCALES.**

**PURCHASE ONLY THE GENUINE.**

**A WORD OF CAUTION.**

The well-earned reputation of our Scales has induced the makers of imperfect and worthless balances to offer them as "Fairbanks' Scales," and purchasers have thereby, in many instances, been subjected to fraud and imposition.

**We have no Controversy with Honorable Competitors,**

But it becomes our duty to expose fraud. If such makers were capable of constructing good scales they would have no occasion to borrow our name  
or use our cuts.

**FAIRBANKS & COMPANY,**  
**MONTREAL.**

south. Services at 11 a.m. and 6.30 p.m. Sabbath school at 3 p.m.

*Mountain Mission.*—Meeting at 2 p.m. Supplied by the pastors of the city.

*Jewish Synagogue.*—King street, west; W. Landau, Rabbi. Services on Saturdays at 8 a.m., 4.30 p.m. and 6.30 p.m.

*The Brethren of One Faith.*—Meet every Sabbath at the Temperance hall, cor of James and Rebecca streets, at 11 a.m. and 6 p.m.

*Bible Christian Church,* Emerald Street.—Rev. S. H. Rice, pastor. Services at 10.30 a.m. and 6.30 p.m.

#### EDUCATIONAL.

##### SCHOOLS AND COLLEGES.

*Hamilton Collegiate Institute.*—George Dixon, B.A., head master.

*Wesleyan Female College,* King Street.—Rev. S. D. Rice, D.D., governor.

*Public Schools.*—A Macallum, inspector. There are a Central or High school, five Ward and several Primary schools in the city, which are well attended, and have attained a high character among the educational establishments of the country.

*Dundas Wesleyan Collegiate Institute.*—W. E. Sanford, president; J. B. Gratton, vice-president; J. T. Wood, treasurer; Rev. E. B. Ryckman, secretary.

##### ROMAN CATHOLIC SCHOOLS.

*St. Mary's Central School,* Mulberry street.—C. Donovan, principal.

*St. Patrick's School,* Hunterstreet.—Conducted by the Sisters of St. Joseph.

*St. Lawrence School,* John street.—Conducted by the Sisters of St. Joseph.

*St. Charles School,* King st., west.—Conducted by the Ladies of Loretto.

*Convent of Mount St. Mary,* King street, west.—Under the direction of the ladies of Loretto; M. Benedicta, Lady Superioress.

#### LITERARY AND SCIENTIFIC.

MECHANICS' INSTITUTE, (ESTABLISHED 1830, THE LIBRARY CONTAINS UPWARDS OF 6,000 VOLUMES.

President, John R. Holden; Vice-President, George Sharp; Secretary, J. G. Bowes.

Directors: John A. Bruce, William Leith, Angus Sutherland, Isaac B. McQueen, Andrew T. Wood, M. P., John N. Tarbox, Chas. E. Peirce, David McCulloch, W. L. Billings, M. D., J. Kneeshaw, supt. and manager.

##### HAMILTON ASSOCIATION.

Established 1857.

The main object of the Association are the formation of a Library and Museum and the illustration of the History and Physical Characteristics of the country. President—H. B. Witton; Vice-President, J. M. Buchan, M. A., and W. Mills; Secretary, George Dickson, B. A.; Treasurer, Richard Bull; Thomas McIlwraith, librarian and curator.

#### TYPOGRAPHICAL UNION.

George M. Bagwell, president; Geo. Henderson; vice-president, W. Robb, treasurer; J. Dougherty, corresponding secretary; John Thompson, financial secretary; W. J. Duff, recording secretary. Meetings first Saturdays in every month, at No. 11 King street, west.

#### CATHOLIC UNION AND LITERARY SOCIETY.

His Lordship the Bishop of Hamilton, patron, rev. P. J. Muddigan, chaplain; Donald Smith, president; K. Fitzpatrick, E. Furlong, vice-presidents; N. J. Power, D. Lavery, C. Donovan, secretaries; Wm. Harris, treasurer. Meets in their new hall, No. 4 James street, south.

*Young Men's Christian Association,* No. 22 King street, east.—James Watson, president; W. Given, secretary. Free library, reading and conversation rooms.

*Women's Christian Association.*—Mrs. James Watson, president; Mrs. Duffield, secretary.

*Knox Church Young Men's Mutual Improvement Society.*—President, T. Pedan; 1st Vice-president, W. O. Eastman; 2nd Vice-president James Brown; Secretary, W. H. McLaren; Treasurer, James Grant.

*Young Men's Literary Association of Wesley Church.*—James A. Harvey, president; H. F. Young, vice-president; T. Mitchell, secretary; R. Ptolemy, R. G. Baillie, treasurers; J. Overholt, librarian.

*Barton Literary and Debating Society.*—President, A. W. Vassie; vice-president, Wm. Lyne; secretary—treasurer G. Graham.

*Adelphian Club.*—F. J. Nelson, president; W. J. Atchison, vice-president; A. C. Beasley, secretary-treasurer; R. Irvin, councillor.

*Hamilton Chess Club.*—Hon. H. B. Bull, patron; N. H. Case, Esq., president; James G. Davis, Esq., vice-president; Henry Stephens, Esq., secretary-treasurer.

*Hamilton Medical and Surgical Society.*—Dr. McDonald, president; Dr. Leslie, vice-president, and Dr. Woolverton, secretary-treasurer.

#### CHARITABLE INSTITUTES.

*House of Refuge,* Cherry Street, foot of the mountain.—Under the patronage of the city council.

*Boy's Home,* Locomotive Street.—Mrs. Catherine Cameron, matron.

*St. Mary's Orphan Asylum,* Park st.—Under the supervision of the Sisters of St. Joseph.

*Hamilton Orphan Asylum and Ladies Benevolent Society,* Wellington Street south.—Samuel Wilson, superintendent.

*Home of the Friendless,* Caroline Street, south.—Mrs. McQueen, president; Miss. Muir, vice-president; Mrs. A. T. Wood, secretary; Mrs James Watson, treasurer; Mrs. McFarlane, matron.

*Children's Industrial School.*—Incorporated by act of parliament—Mrs. MacKelcan, first directress; Mrs. Charlton, second directress; Mrs. Ewing, treasurer; Mrs.

## SMITH'S FALLS FOUNDRY AND AGRICULTURAL WORKS.

Foremost among the pioneers in the manufacture of farming implements and machinery in Canada, stands the old and well known firm of Messrs. Frost & Wood, proprietors of the Smith's Falls Foundry and Agricultural works. From the small workshop, started in 1839 for the manufacture of ploughs, has sprung the present extensive establishment in which are yearly made over 1000 "Buckeye" mowers and reapers, 1200 horse rakes, 1500 ploughs, and a variety of other useful farming implements, which have an enviable reputation throughout the Dominion for excellence cheapness and efficiency. The village of Smith's Falls, where these works are located, contains about 2000 inhabitants, and is connected with Brockville on the Grand Trunk Railway, and St Lawrence River, by the B. & O. Railway; with Ottawa, and the Ottawa Valley, by the C. C. Railway, and has direct water communication with Ottawa, Kingston and Montreal by the Rideau Canal, thus affording ample facilities for shipping to all parts by either rail or boat.

The works occupy about two acres of ground with a street frontage of 500 feet and a dock frontage of 500 feet on the canal.

They are built mostly of stone, and comprise, besides an elegant and commodious detached office, four warehouses, with a storage capacity of 23,000 square feet, two machine shops, 50 x 70 and 50 x 120, fitted up with a large number of lathes, planers, drills, vices, emery wheels, &c., &c. one blacksmith shop, 40 x 72, conveniently situated between the two machine shops, and containing ten forges, a steam hammer, shears, punching and bolt making machines; and also machinery for pressing and tempering steel mould boards; three carpenter shops, 50 x 120, 50 x 70 and 38 x 60, furnished with all the latest improved machinery for planing, sawing, morticing, tenoning, bending, turning, and boring, besides a large number of work benches, and five painting rooms, with a total area of 12,280 square feet.

In addition to these there is an engine and boiler room with drying room overhead, a rumbling room and store-rooms, for finished and unfinished castings; and all these several shops and floors are connected by galleries, elevators and tramways, so as to facilitate the rapid and easy handling of the various parts of the machines in process of construction from the raw material to the finished product.

A 60 horse-power engine, with two boilers of 75 horse-power capacity supplies the motive power for driving the extensive machinery throughout the establishment.

One hundred and twenty-five workmen are at present employed, but the number in brisk times has run up to one hundred and seventy-five. The average monthly payroll at present is \$3,000.00. No better evidence can be given of the character and methods of the fair dealing of

this firm than the fact that among its employes, are a number who have been in its service for twenty, and even thirty years, and it is also a noteworthy fact, that in all the years of its existence, work has not been suspended, except for annual repairs during the Christmas holidays and once in 1854, on account of being burned out, when a month's delay was occasioned for re-building, while through all the ups and downs of the commercial history of the country a steady progressive growth has been maintained and by the uniform excellence of its manufactures, and its liberal, courteous, and straight-forward dealings with its agents and patrons, the demand for its productions has steadily increased until now a ready sale is found for them in every portion of the Dominion from Manitoba to Newfoundland.

McQueston, corresponding secretary; Miss Macnab, recording secretary.

## NATIONAL AND BENEVOLENT INSTITUTIONS.

*St. George's Society, Officers, 1876.*—C. E. Peirce, president; J. M. Burns, 1st vice-president; C. H. Bampfylde, 2nd vice-president; R. Cranfield, secretary-treasurer.

Board of Managers—Wm. Bateman, S. Meadows, H. Wilson, M. Howles, A. Green, R. Martin, W. Bateman, jun., A. F. Hallett, S. Richards.

*St. Andrew's Society.*—Instituted Dec. 29th, 1835. Officers, 1876—David McLellan, president; Arch McCallum, 1st vice-president; James Angus, 2nd vice-president; A. A. Wyllie, treasurer; G. McKeand, secretary; Drs. McDonald and MacKintosh, physicians. All the Scotch ministers are chaplains.

Charitable Committee—D. Gill, M. Hamilton, John Campbell, J. Moodie.

*Caledonian Society.*—Patron, Hon. Isaac Buchanan; chief, Adam Brown; 1st chieftain, Robert Chisholm; 2nd, Archibald McCallum, 3rd, C. H. Sutherland, 4th, James Gordon, treasurer; J. F. McClure; secretary, William Foreman; assistant, Walter Hill.

*Irish Protestant Benevolent Society.*—Established 1869. —Officers, 1876.—H. H. Bull, president; Chas. Foster, John Moore, Robert Beatty, vice-presidents; A. L. Reeves, secretary; Henry Burrows, assistant secretary; Chas. Beatty, treasurer; R. M. Ballantine, chairman of charitable committee. Meets 2nd Tuesday in each month at the Young Men's Christian Association rooms, King street, east.

*Emerald Beneficial Association, Sarsfield Branch, No. 1, Ont.*—John Brick, president; Arthur Kavanagh, vice-president; P. J. Cullhane, Thomas Maloney secretaries; James Ferguson, marshal; Rev. B. J. O'Connell, chaplain. Stated meetings, first and third Tuesdays of every month, at their Hall, 34 King street, west.

*St. Patrick's Benevolent and Literary Society.*—C. Donovan, president; Michael Murphy, John McKinty, vice-presidents; Patrick Merin, secretary; Michael Murphy,

# SMITH'S FALLS FOUNDRY

AND

## AGRICULTURAL WORKS.

### FROST & WOOD,

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*THE AMERICAN SELF-DUMPING HORSE RAKES.*

### ITHACA STEEL HORSE RAKES,

With Patent Self-Dumping attachment.

### 8 and 10 Horse-Power Threshing Machines.

HARDER'S TWO-HORSE RAILWAY POWER, AND

### COMBINED THRESHER AND CLEANER.

Wrought Iron Beam Steel Plows.

### WOOD SAWING MACHINES.

Grain Crushers, Field Rollers, Cultivators, Road Scrapers. &c., &c..

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*Mill Castings and Job Work of all Kinds.*

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HORSE SHOES,  
HORSE NAILS,  
CLINCH <sup>AND</sup> PRESSED NAILS.

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GEORGE STREET,  
**ST. JOHN, N.B.**



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HAND MADE

## BOOTS AND SHOES,

MANUFACTURED BY

FOSTER & SEEVER;  
ROCK ISLAND; P.Q.

ESTABLISHED 1861.

O. V. GOULETE,  
GANANOQUE,

Province of Ontario

Canada.

AGENTS FOR

JAMES PAYNE'S and A. RODA'S

Carved Work, Walnut Mouldings, Oval Frames, &c., &c

SEND FOR PRICE LIST OF

Buggy Seat Spindles, Wheel Heads,  
Brass Feruled Handles, Cabinet Turning,  
CARPENTERS' TURNING.

### ALEXANDER GORDON.

The scale manufactory of Mr. Alexander Gordon was established in 1847.

The factory and office is situated at 73 College street, Montreal. The buildings are of brick, one storey in height, covering about two hundred square feet, employing fifteen men. The scales manufactured at this establishment are of a superior quality; and those in want of such goods would do well to send for a price list before purchasing elsewhere.

treasurer. Meets first Thursday in each month, at the St. Patrick's Hall.

### MILITARY.

*Thirteenth Battalion.*—Col. J. A. Skinner, M.P.; Majors, H. E. Irving, A. H. Askin; paymaster, Major R. Grant; quarter master, Capt. J. J. Mason; surgeons, George Ryall, M.D., and E. G. Kittson, M.D.; adjutant, Lieut. James Macready.

*No. 1 Co.*,—J. M. Gibson, captain; R. K. Hope, Lieutenant.

*No. 2 Co.*,—A. H. Moore, captain; P. B. Barnard, D. S. Murphy, Lieutenants.

*No. 3 Co.*,—C. Armstrong, captain; G. W. Griffin, Lieutenant; E. C. Kerr, ensign.

*No. 4 Co.*,—H. MacLaren, captain; John Stoneman, ensign.

*No. 5 Co.*,—J. J. Boice, captain; E. T. Caddy, lieutenant; James Adam, ensign.

*No. 6 Co.*,—A. W. Roy, captain; B. Crockett, lieutenant; Alfred McKeand, ensign.

### TEMPERANCE SOCIETIES.

*Independent Order of Good Templars.*

*Grand Lodge of Ontario.*

Chartered Location, Hamilton.

Rev. M. L. Pearson, G. W. C. T., Iroquois; E. Baynes Reid, G. W. C., London; Miss Watson, G. W. V. T., Toronto; T. W. Casey, G. W. S., Napanee; T. H. Flagg, G. W. T., Mitchell.

*Wentworth Co., Lodge No. 1.*—Bro. J. W. Bundle, Hamilton, D. W. C. T.; Bro. A. B. Griffin, Waterdown, D. W. S.; Bro. J. Kieve, Carlisle, D. D. G. W. C. T. Meets every three months.

*Hamilton Temple, No. 9.*—Thomas Lawless, T. D.; T. Copland, chairman of trustees. Meets every Friday evening, at the Hall, 11 King street, west.

*Burlington Lodge, No. 470.*—Meets Monday evening in the Hall, cor. Rebecca and James streets.

*Rescue Lodge, No. 222.*—Meets Tuesday evening at the Hall, No. 11 King street, west.

*Reliance Lodge, No. 518.*—Meets Thursday evening in the Hall, corner James and Rebecca streets.

*Victoria Lodge, No. 520.*—Meets Tuesday evening in the Hall, No. 34 King street, west.

*Advance Lodge, No. 774.*—Meets Monday evening in the Hall, 11 King street, west.

*Nasery Lodge, No. 448, (colored).*—Meets Wednesday evening in the basement of the B. M. E. Church, Rebecca street.

### JUVENILE TEMPLARS.

Thos. Lawrence, superintendent; L. A. Morrison D. S. *Ambitious Lodge, No. 32.*—Meets Wednesday evenings cor. Rebecca and James streets.

*Evening star, No. 42.*—Meets Tuesday evenings in the basement of the B. M. E. Church, Rebecca street.

*Mount Zion, No. 53, Carlisle.*—Meets Saturday evenings.

*Willow Bank, No. 54, Ancaster.*—Meets Monday evenings.

### SONS OF TEMPERANCE.

*Ambitious City Division, No. 25.*—Meets Thursday evenings, in the Good Templars' Hall, 11 King street, west.

*Father Mathew Temperance and Benevolent Society.*—Michael Brown, president; Michael Coughlin, vice-president Thos. McKinty, secretary; James Passmore, treasurer. Meets in St. Patrick's Hall, 1st and 3rd Thursday in each month.

### AGRICULTURAL SOCIETIES.

*Hamilton Electoral Division Agricultural Society.*—Officers for 1876; Messrs. J. A. Bruce, president; Robert Grant, 1st, vice-president; J. Freed, 2nd vice-president F. C. Bruce secretary; Messrs. H. H. Hurd, Geo. Roach, W. Hendrie, Jno. Mitchell, Wm. Hill, S. P. Stipe, Angus Sutherland, F. W. Fearman, Albert Carpenter, directors; W. Luxton, and W. Bell, auditors.

*County of Wentworth Agricultural Society.*—Officers for 1876; F. M. Carpenter, Saltfleet, president; J. V. Spohn, Hamilton, 1st vice-president Joseph Jardine, S. S. N. Barton, 2nd vice-president Jno Davis, Saltfleet, secretary-treasurer; Jos. Rymal M. P., William Findlay, jun., auditors.

*Hamilton Horticultural Society.*—George Roach, president; George Lee, A. W. Taylor, vice-presidents; Thomas Meston, secretary; Robt. Evans, treasurer.

*Wentworth Division Grange.*—Moss J. Olmstead, master; P. S. Van Wagner, overseer; David Patterson, lecturer; Wm. Scott, steward, Geo. Gastie, assistant steward; Reuben Sparks, chaplain; M. C. L. Kitchen, treasurer; F. M. Carpenter, secretary.

### SOCIAL ORGANIZATIONS.

#### MASONIC.

*Barton Lodge, No. 6.*—C. Davidson, W. M.; John Mowat, secretary.

*Strict Observance, No. 27.*—Bro. J. Henry, W. M.; David Kidd, secretary.

*St. John's Lodge, No. 40.*—D. Aitcheson, W. M.; Kneeshaw, secretary.

*Acacia Lodge, No. 61.*—Bro. J. Widger, W. M.; Bro. R. McKay, secretary.

*Temple Lodge.*—W. Bro. J. M. Gibson, W. M.; C. Lemmon, secretary.

**ALEX. GORDON,**  
**PRIZE**



**PATENT SCALES**

**MANUFACTURER,**

**73 COLLEGE STREET,**

**MONTREAL,**

Manufactures and keeps on hand a good assortment of

**Patent Platform and Counter Scales.**

**Hay & Forwarding Scales**

**MADE TO ORDER.**

## THE NOVELTY WORKS.

The Novelty Works, Messrs. R. Gardner & Son, proprietors, are situated at the corner of Nazareth and Brennan streets, Montreal, extending back to Dalhousie street, and covering a very large area of ground. The works are well furnished with the latest improvements in machinery, and, probably, there is not a manufactory in the Dominion possessing better facilities for producing the best classes of the various goods manufactured by the firm. Each department is provided with the best labor saving machinery and appliances known to the trade, and is under the control of a competent foreman. These foremen have been in the employ of the firm for a number of years and have been promoted for merit, so that the work turned out under their supervision can be relied on as first class. The firm does a very large business in steam engines of all sizes, from ten horse power to one hundred horse power. One of the special features of this establishment is the show room, where intending purchasers of engines and other machinery can at all times see a large stock on hand, and in working order, from which to select, instead of having to give their orders from drawings, or patterns, which frequently they do not understand and are consequently disappointed in the goods after they are delivered. Another advantage of having a large stock of first class articles always on hand is this; many persons do not think of ordering engines, boilers or other machinery until just as they are required, and are annoyed because they cannot be had immediately; by visiting Messrs. Gardner & Son's warehouses this difficulty will be overcome, for, generally, intending purchasers will find what they require ready made and capable of being used at a few hours' notice.

Among the specialties manufactured by this firm are mill and factory machinery, saw mills, bark mills, machinists' tools, lathes, planers, etc., cracker and biscuit machinery, etc., etc. Messrs. Gardner & Son also keep on hand a full line of supplies and are agents for Judson's Patent Governor and several other of the best English and American manufacturers.

*Hamilton Masonic Hall Association.*—Hugh Murray, president; R. Brierley, J. W. Murton, C. Davidson, E. Mitchell, C. R. Smith, D. McPhee, directors; C. R. Murray, treasurer; J. J. Mason, secretary.

*Hamilton Masonic Mutual Benefit Association.*—R. Brierley, president; J. J. Mason, secretary. Office, Masonic buildings, James street.

*The Hiram R.A.C., No. 2.*—E. comp. F. R. Despard, Z.; F. F. Dalley, scribe E. Meets first Monday in each month.

*St. John's R. A. C., No. 6.*—E. comp. J. M. Gibson, Z.; A. Pain, scribe E. Meets 2nd Thursday.

*Salem Council, G. R. O., No. 9.*—Thrice Ill. M. R. Brierley; C. L. Von Gunten, recorder. Meets 2nd Monday.

*The Godfrey de Bouillon Preceptory.*—E. Frater, D. McLellan, E. F. J. M. Gibson. Meets first Friday.

*Murton Lodge of Perfection, No. 1.*—Ill. Bro. David McLellan, 32° T. P. M. Meets 3rd Wednesday.

*Hamilton Sovereign Chapter Rose Croix.*—Ill. Bro. Hugh Murray, 32° M. W. S.; Sov. Pr. R. A. Hutchison, 18° secretary. Meets 4th Tuesday.

*Moore Sovereign Consistory.*—Ill. Bro. G. W. Murton, 338 Ill com; Bro. J. M. Gibson, 32° secretary.

*Harrington Conclave, No. 22 Kts R. C. B. and C.*—Sir Kt. H. A. McKay, M. P. S.; Sir Kt. W. Gibson, rec. Meets February, May, August and November.

## ODD FELLOWS.

### INDEPENDENT ORDER.

*Burlington Encampment, No. 7.*, I. O. O. F.—J. C. White, C. P.; J. W. Wilson, H. P.; T. R. Honeycomb, S. W.; J. Lucas, J. W.; G. Midgley, treasurer; W. F. Collier, scribe.

*Excelsior Lodges, No. 44.*, I. O. O. F.—James Addison, N. G.; S. Robbins, V. G.; Wm. Scott, R. S.; Thos. McKay, P. S.; R. C. Cooper, treasurer.

*Unity Lodge, No. 47.*, I. O. O. F.—R. Coulter, N. G.; Henry Johnson, V. G.; W. F. Collier, R. S.; Geo. Midgley, P. S.; Alex. McKay, treasurer.

*Crescent Lodge, No. 104.*, I. O. O. F.—Thomas McCallum, N. G.; Geo. Britton, R. S.; A. McDonald, P. S.

*Oak Leaf Lodge, No. 151.*, I. O. O. F.—J. H. Conklin, N. G.; J. McKee, V. G.; A. Patterson, R. S.; F. N. Nixon, P. S.; John Greenfield, treasurer.

### MANCHESTER UNITY.

*Commercial Lodge, No. 9.*—J. Roderick, N.G.; J. Phelps, P.S.

*Hamilton Lodge, No. 7.*—T. Parry, P.S.

*Strict Observance, No. 48.*—Wm. Peebles, N.G.; W. Sharp, P.S.

## KNIGHTS OF MALTA.

*Supreme Encampment, K.M. of America.*—Officers residing in Hamilton: R. E. A. Land, M.E.G. com.; V.E. Prelate E. Graves Kittson, M.D.; V.E. Registrar W. J. Duff; V.E.S.W., John Kelly; D.D. G. com., E. Graves Kittson, M.D.; lecturer, Joseph Hargrave.

*Star of Bethlehem Encampment.*—Sir Knights comp., E. G. Kittson, C.; Joseph Riddell, G.; Joseph Hargrave, C. G.; John Kelly, P.; Wm. J. Duff, R.; Benson Cryslar, treasurer; G. R. Myers, registrar.

## KNIGHTS OF PYTHIAS.

*Red Cross Lodge, No. 3.*—Bros. T. Pedlar, P.C.; Jesse Chapman, C. C. A.; C. Reid, M.D., V.C.; Geo. Lancofield, P.; Geo. Cavill, K. R. S.

## ANCIENT ORDER OF FORRESTERS.

At the regular meeting of Court Pride of Ontario, No. 5640, of the above Order, held in their Hall on Thursday evening, January 13th, the following brethren were elected and installed for the ensuing term: P.D.C.R., Bro. G. Maddocks, C. R.; P. D. C. R., Bro. Starnkes, S.C.R.; P.D.C.R., Bro. J. B. Buckingham, secretary;

Frater, D.  
Friday.  
Bro. David  
uesday.  
l. Bro. Hugh  
chison, 18°

W. Murton,  
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and C.—Sir  
Hibson, rec.

F. J. C.  
loneycomb,  
arer; W. F.

es Addison,  
S.; Thos.

lter, N. G.;  
Geo. Midg-

mas McCal-  
ld, P. S.  
H. Conklin,  
R. S.; F. N.

, N.G.; J.

, N.G.; W.

ca.—Officers  
E.G. com.;  
E. Registrar  
G. com., E.  
grave.  
ights comp-  
h Hargrave,  
Benson Cry-

P.C.; Jesse  
Geo. Lanco-

ERS.  
Ontario, No.  
on Thursday  
then were  
: P.D.C.R.,  
o. Starnkes,  
, secretary;

**R. GARDNER & SON,**

MANUFACTURERS OF

**Hall's Patent Open Furnace Reel Bake Ovens.**



**Bakers' & Confectioners' Machinery**

**A SPECIALTY.**

**Nazareth, Brennan and Dalhousie Streets,**

**MONTREAL.**

NOVELTY WORKS.

**R. GARDNER & SON,**

Nazareth, Brennan and Dalhousie Streets,

**MONTREAL.**



Manufacturers of

**Steam Engines,**

**AND MACHINERY OF EVERY DESCRIPTION,**

*Mill Work, Forgings, &c., all done on the premises  
with the latest and most improved Machinery.*

**Contractors' Supplies, Railroad Work, &c., &c.**

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Bro. J. Clarke, treasurer, (re-elected); Bro. J. Etherington, S. W.; Bro. J. Heath, J. W.

#### ORANGE SOCIETIES.

*L. O. L. District Lodge of Hamilton.*—Bro. Wm. Griffith, D.M.; J. Allen, D.C.M.; Robt. Stevens, Chaplain; J. McKenna, Secretary; Robt. Blair, Treasurer; Ralph McCormack, D. of C.; John Noble, Tyler. There are also several subordinate societies in the city and county.

#### THE DOMINION OF CANADA CIVIL SERVICE MUTUAL BENEFIT ASSOCIATION.

Organized April 12th, 1875. Head Office of the Provisional Board, Hamilton, Ontario.

Officers: Lieut. Col. Patton, president, collector inland revenue; first vice-president, Henry Colbeck, assistant postmaster; second vice-president, William Gillesby, customs. Directors, W. H. Kittson, collector of customs; S. F. Ross, deputy collector inland revenue; F. Shepherd, customs; Alfred Crisp, post office; treasurer, John B. Eager, post office; secretary, W. F. Miller, inland revenue; auditors, James Gordon, post office; Herbert L. Dixon, customs.

Hamilton Division Local Board.—H. W. Woodward, customs, chairman; A. D. Arnott, inland revenue, vice-chairman; G. H. Armstrong, post office, secretary-treasurer. The annual meeting of the Head Board is held on the first Monday in March. The Board of Directors meet four times in each year exclusive of the annual meeting, viz: on the second Monday in each of the months of January, April, July and October.

*Women's Temperance Union.*—Mrs. Dr. Rice, president; Mrs. Cameron, and Mrs. Hector, vice-presidents; Mrs. D. B. Chisholm, recording secretary, Mrs. Harriet McLaren, corresponding secretary; Mrs. Hutchinson, treasurer.

#### RAILWAYS.

*Great Western Railway of Canada.*—Rt. Hon. Hugh C. Childers, president, England; F. Broughton, general manager, Hamilton; C. Stiff, general superintendent; Chas. Percy, treasurer; Thos. Tandy, manager's secretary; R. S. Barker, solicitor; J. McEwan, station master.

*Hamilton and North Western Railway.*—General offices, cor. Cannon and Ferguson avenue; A. A. Anderson, general superintendent; Wm. Rodgers, mechanical superintendent; Maitland Young, secretary; H. J. Black, accountant.

#### BANKS.

*Bank of Hamilton.*—Capital subscribed, \$1,000,000. Head office, Hamilton. Donald McInnes, president; John Stuart, vice-president; James Turner, Edward Gurney, Dennis Moore, John Proctor, directors; H. C. Hammond, cashier; E. A. Colquhoun, accountant; E. Pinnington, messenger.

*Bank of British North America.*—King street, east.

Paid up capital £1,000,000 sterling. Incorporated by Royal Charter. T. Corsan, manager; W. D. Chambers, accountant; Thomas Wilson, messenger.

*Canadian Bank of Commerce, Hamilton.*—W. McMaster, president; W. N. Anderson, general manager; J. C. Kemp, manager; E. J. Smith, accountant; W. Maynard, assistant accountant; F. C. Minty, John Ferrise, tellers; John Cousins, Andrew Stewart, messengers. Capital \$6,000,000.

*Bank of Montreal, Incorporated 1818.*—Paid up capital \$12,000,000. David Torrance, president; R. B. Angus, general manager, Montreal; T. R. Christian, manager; C. Sweeney, accountant; C. C. Wynyard, teller; George Thomas, messenger.

*Merchants Bank of Canada.*—Capital \$9,000,000. Wm. Cook, manager; J. C. Geddes, accountant; W. A. Bellhouse, teller; T. C. S. Corry, ledger keeper.

*Royal Canadian Bank.*—Capital \$2,000,000. Hon. A. Campbell, president; J. M. Burns, manager; J. Graham, accountant; D. W. Shaw, teller; J. Palm, ledger keeper; J. J. Dean, discount clerk; P. H. Stuart, clerk; Wm. Haverhill, messenger.

*Stinson's Bank.*—James Stinson, proprietor; C. M. Counsell, manager.

#### THE HAMILTON PROVIDENT AND LOAN SOCIETY.

Incorporated 1871. Adam Hope, president; W. E. Sanford, vice-president; H. D. Cameron, treasurer.

#### BURLINGTON YACHT CLUB.

Edward W. Browne, commodore; J. G. Brower, secretary; Capt. Jas. Wylie, V. C.; E. H. Brooks, captain.

#### STAGE ROUTES.

The following stages leave the American hotel, cor. King and Charles streets:

*Hamilton and Guelph.*—Leaves Hamilton at 10.30 a.m., arrives at Guelph at 5 p.m. Leaves Guelph at 10.30 a.m., arrives at Hamilton at 5 p.m. Fare \$1.00.

*Hamilton and Milton.*—Leaves Hamilton at 2.30 p.m., arrives at Milton at 7.30 p.m. Leaves Milton at 5 a.m., arrives at Hamilton at 10 a.m. Fare \$1.00.

*Hamilton and Dundas.*—Leaves at 12 noon and 5 p.m. Returning, leaves Dundas at 7.30 a.m., and 3.30 p.m. Fare 25 cents.

*Hamilton and Ancaster.*—Leaves at 10.30 a.m., and 4.30 p.m. Leaves Ancaster at 7.30 a.m., and 1 p.m. Fare 25 cents.

#### ST. JOHN, N. B.

This is the commercial metropolis of the Province, and capital of the Co. of St. John, is picturesquely situated at the mouth of a river of its own name, on a rocky peninsula projecting into the harbor, 190 miles N.W. of Halifax, via Annapolis, or 276 miles, via Intercolonial railway, and 761 miles S.E. of Montreal. Lat. 45° 14' 6" N., lon. 66° 3' 30" W. (Partridge Island light.)

### E. & C. GURNEY.

This well-known house was established in 1842, and is the largest establishment of the kind in the Dominion. Their buildings in Hamilton are of brick, three storeys in height, and are quite an ornament to the city, and their branch house in Toronto is almost as extensive, giving employment to over two hundred and fifty hands, using thirty-horse steam power. The celebrated Heaton Climax emery wheels, and emery-grinding machinery is manufactured by this firm.

The city is regularly laid out and well built. It stands on a declivity, and when approached from the sea has an imposing appearance. The whole of the elevated portion of the city consists of solid rock, which, for the purpose of forming tolerable streets, has had in some places to be excavated to a depth of 30 and 40 feet.

The buildings are chiefly of brick and stone, and many of the public edifices have an elegant appearance. The principal ones are St. Mary's Cathedral, (R.C.,) Lunatic Asylum, City Hospital, Court House and Jail, Marine Hospital, Penitentiary, Alms House, Male Orphan Asylum, Academy of Music, Dramatic Lyceum, Mechanics' Institute, Skating Rink, and the Barracks.

There are 34 places of worship in St. John, viz: Church of England 8; Roman Catholic 3; Presbyterian 7; Wesleyan Methodist 6; Baptist 9; Congregational 1.

The educational institutions comprise a grammar school, a Madras school, and a number of public and private schools.

St. John has a number of religious and charitable societies, a public library, 2 banks and 2 branch banks, 1 savings bank, an efficient fire brigade, fire alarm telegraph, 4 daily and several weekly newspapers, and a number of first class hotels.

The thriving suburb of Carleton, on the opposite side of the harbor, is included within the city corporation.

The harbor of St. John is capacious, safe and never obstructed by ice. Its entrance, about 2 miles S. of the city, is protected by Partridge Island, on which are a quarantine hospital and a lighthouse, the lantern 166 feet above the level of the sea. The passage W. of the island has in it 10 feet of water, that to the E. 16 feet, and abreast of the city there are from 8 to 22 fathoms; both sides of the entrance are composed of sharp rocks, which become dry at low water. About  $\frac{1}{2}$  of a mile N. of the lighthouse is a vertical beacon, fixed on the edge of a rocky ledge which forms the W. side of the channel and has deep water close to it. On the E. side of the channel, below the town, a breakwater has been constructed to intercept the violence of the waves, occasioned by southerly gales. The entrance of the River St. John into the harbor, about  $1\frac{1}{2}$  mile above the city, is through a rocky gorge, 90 yards wide and 400 yards long, occasioning very remarkable falls. The ordinary rise of the

tide in the harbor is 21 feet; at the vernal equinox it rises 25 feet. At low water, the waters of the river are about 12 feet higher than those of the harbor, at high water the waters of the harbor are 5 feet higher than those of the river, hence the phenomena of a fall outwards and inwards at every tide. Above the falls the tide seldom rises more than 4 feet. When the waters of the harbor and river are on a level vessels can pass the falls, and this can be effected only during a period of 15 or 20 minutes at each ebb and flow of the tide. At times of great freshets, occasioned by the sudden melting of the snow, the tides do not rise to the level of the river, and consequently it is not possible for vessels to ascend the fall. The depth of the fall is about 17 feet. Spanning the rocky gorge, about 100 feet above low water, is a magnificent suspension bridge 640 feet in length. Number of dwellings in St. John in 1872, 3,479.

St. John is the *entrepot* of a wide extent of country, abounding in agricultural resources, minerals and valuable timber. Its admirable situation at the mouth of one of the largest rivers in North America, with a harbor open all the year round, with regular steam communication with all the main ports of Nova Scotia, and the northern portion of the United States, with first class railways running from it in every direction, with extensive maritime and manufacturing interests, ensures the certainty of its becoming a city of the greatest commercial importance.

St. John has manufactories of iron castings, steam engines, machinery, edge tools, nails, cotton and woollen goods, boots and shoes, leather, wooden ware, soap and candles, carriages, locomotives, agricultural implements, lumber, paper, sugar boxes, &c. Its most important branch of industry, however, is shipbuilding. The number of vessels built in 1872 was 74 (tons 28,914).

The number of arrivals at St. John in 1872 was 1,562 (tons 420,560), and the clearances 1,527 (tons 456,967). Total value of imports \$7,534,099; exports \$3,650,181; viz: products of the forests \$2,007,831; of the fisheries \$138,843; of the mines \$27,182; animals and their products \$75,644; agricultural products \$21,235; and manufactures \$636,672, of which sugar boxes represent \$508,763.

Between 600 and 900 men are yearly engaged in the fisheries in the harbor of St. John. Salmon, shad, herrings, alewives, halibut and haddock are taken in large quantities.

The streets of St. John are lighted with gas, and the city is well supplied with water from a lake 4 miles in rear of the city.

The railway system of New Brunswick centres at St. John. The great Intercolonial connects the city with Nova Scotia and the Gulf of St. Lawrence, and the European and North American railway (consolidated) connects it with the United States. The head offices of the former are at Moncton and of the latter at Bangor, Me.

# HEATON'S "CLIMAX" EMERY WHEELS,

MANUFACTURED EXCLUSIVELY BY

## GURNEY & HEATON,

HAMILTON, ONTARIO, CANADA.

**Solid Emery Wheels** have been offered to the public for some years, but have in most instances proved failures through imperfections in the materials used, and in the mode of manufacture.

Their value, when properly made and of suitable materials, is rapidly being realized, and in the United States they have become one of the necessary and important tools in every foundry and machine works, as well as in many special manufactories.

The **Climax** Wheel is the result of a series of experiments by Mr. CHAS. HEATON, of New York, a mechanical engineer, who has for years made the Emery Wheel Business a special study, and we offer this Wheel confident that in it he has overcome the several imperfections of previous Wheels, and has produced one that

*Combines more of the features that constitute a Perfect Wheel than any other yet produced.*

**CLIMAX** Wheels will cut faster with a given amount of durability than any other Wheel, or they will last longer with a given amount of cutting quality than any other Wheel.

The **CLIMAX** Wheel may be run faster than any other Wheel now made, but it is not necessary to run it fast to make it cut. It will cut at any speed. The faster it runs, IF STEADILY, the better it cuts.

**CLIMAX WHEELS** cannot glaze,

**THEY MAY BE USED UPON RED HOT METALS AS WELL AS UPON COLD, AND WET OR DRY,**  
*But when wanted to be used wet the fact should be made known with the order.*

**CLIMAX WHEELS** do not contain any non-cutting matter, therefore they cut fast, are durable and work cool at the same time. Unlike other Wheels, they are so extremely strong, if properly mounted, they may be run at double the ordinary speed!

**CLIMAX WHEELS GIVE OUT NO SMELL WHEN IN USE.**

SEND FOR CIRCULAR AND PRICES.

Address

**GURNEY & HEATON,**  
HAMILTON, Ontario, Canada.

#### VICTORIA WIRE WORKS, HAMILTON.

Those works were established in 1859.

The factory is situated at the corner of Hess and Peter streets, covering half an acre of ground. The factory is well supplied with all the most approved machinery. The firm was awarded the first prize at the Provincial exhibition in Hamilton, 1868, and at London, Ontario, in 1873. This is the only complete wire mill in the Province of Ontario.

Although settlements have been made in Acadia for many years no mention is made of St. John until 1604 when the French explorer, Champlain, pilot of an expedition commanded by M. de Mouts, after coasting along the shores of Nova Scotia, crossed the Bay of Fundy, and discovered the magnificent river, which he named St. John. At that time it was called by the Aborigines, Ouangondy. No settlement was made until 1635, when a French nobleman named Charles St. Etienne, Lord of Latour, commenced the erection of a palisade fort opposite Navy Island, in the harbor of St. John. De la Latour, having been appointed Lieutenant General, lived here for a long time with a large number of retainers and soldiers, and traded in furs with the Indians. But, having fallen into disfavor with the French King, he was ordered to surrender his fort and commission; this he refused to do, and an expedition under the command of one D'Aulnay Charnisay, was sent out in 1643 to eject him. D'Aulnay blockaded the fort, but Latour, having got assistance of men and ships from Governor Winthrop, of Boston, drove his fleet back to Port Royal (now Annapolis, N.S.), where a number of his vessels were driven ashore and destroyed. Again, in 1645, D'Aulnay attacked the fort, and Latour, being absent with a number of his men, his lady took command, and defended it with so much skill and perseverance that the fleet was compelled to withdraw. Having received reinforcements, D'Aulnay shortly afterwards returned, and again attacked the fort by land. After three days spent in several unsuccessful attacks, a Swiss sentry, who had been bribed, betrayed the garrison, and allowed the enemies to scale the walls. Madame Latour personally headed her little band of fifty men, and heroically attacked the invaders; but seeing how hopeless was success, she consented to terms of peace, afforded by D'Aulnay, if she would surrender the fort. He, immediately upon getting possession, disregarded all the conditions agreed to, hung the whole garrison, and compelled this noble woman, with a rope around her neck, to witness the execution; she, a few days afterwards, died of a broken heart. In 1650, Latour returned to St. John, and received from the widow of D'Aulnay, who had died in the meantime, the possession of his old fort. In 1653 they were married, and he once more held peaceable control of his former lands as well as those of his deceased rival. In 1654 an expedition was sent by Oliver Cromwell from England,

which captured Acadia from the French, and Latour was once more deprived of his property and possession. In 1657, Acadia was ceded to France by the treaty of Breda, but no settlement of importance was made until the year 1749, when a fort was built at the mouth of the Nerepis river, about 10 miles from the city of St. John. In 1745, the French were again driven out by the English; and in 1758, a garrison was established at St. John, under the command of Colonel Moncton. In 1764, the first English settlers came to New Brunswick, but no permanent settlement was made until 1783, when the Royalists arrived and founded the present city of St. John. It was created a town by Royal Charter in 1785.

St. John (city and county) returns 3 members to the House of Commons and 6 to the Provincial Legislature. Population of the city in 1861, 27,317; in 1871, 28,805.

#### LONDON.

This is the capital of the Co. of Middlesex, on the River Thames, 121 miles W. of Toronto, 107 miles E.N.E. of Windsor. It has a fine appearance, the streets are lighted with gas and are wide and run at right angles to each other. Upon them are many excellent buildings.

It is the centre of the finest agricultural region of Canada, and a sort of diverging centre of three railways, being the junction of a branch of the Great Western to Sarnia from the main line, the northern terminus of the London and Port Stanley railway, and having a branch of the Grand Trunk from St. Mary's, connecting it with that line.

London contains 6 branch banks, 2 telegraph agencies, a number of fine hotels, a host of stores, 4 printing offices, issuing 3 daily and several weekly newspapers, an exhibition building, a lunatic asylum, orphan asylum, hospital, 9 schools, a convent, 4 colleges (including Huron College, Hellmuth College and Hellmuth Ladies College, three good educational establishments,) and 19 churches (including Church of England and Roman Catholic Cathedrals.) St. Paul's church (church of England), is one of the few in Canada possessing a peal of bells.

The manufactories of London are represented by extensive iron foundries and machine shops, mills, breweries, chemical works, petroleum refineries, tanneries, boot and shoe, soap and candle, musical instrument, cabinet, carriage, and other factories, &c.

The commercial affairs of the city are regulated by a Board of Trade. The city returns 2 members to the House of Commons and 1 to the Provincial Legislature. During the summer months large numbers of invalids and health seekers visit London to enjoy the benefit of its white sulphur springs (famed for their medicinal qualities). London is a port of entry. Total value of imports for 1872, \$1,740,850, exports \$1,470,263. Population in 1852, 6,034; 1861, 11,555; 1871, 15,826.

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ESTABLISHED 1859 !! ESTABLISHED 1859 !!!

## VICTORIA WIRE MILLS HAMILTON,

Corner of Hess and Peter Streets.

### B. GREENING & CO.,

Wire Drawers, and Manufacturers of

**Every description of Wire Work,**

Sieves, Riddles and Steel Wire Brushes, for Iron Founders,

**WEAVERS OF FANNING MILL WORK,**

**Strong Wire Web, by Steam Power, for Mining Purposes,**

Railways, Malt Kiln Floors, &c.,

Galvanized Wire Rope for Shipping,

Pliable Steel Robes for Transmitting Power  
and Contractors Use.

**Ornamental and Stained Wire Fencing made by  
Machinery**

## LEEDS AGRICULTURAL IMPLEMENT WORKS.

These works were established in 1874 by Mr. Geo. Gillies. The factory and office are situated on the confluence of the Gananoque and St. Lawrence rivers, in the town of Gananoque. The buildings are of brick, and are very handsome, covering about half an acre of ground, giving employment to from forty to fifty hands. The agricultural implements manufactured in this establishment have been awarded the first prize at the provincial exhibition held in Ottawa in 1875.

## GUELPH.

GUELPH is the County Town of the County of Wellington, Province of Ontario. Situated in one of the most fertile portions of the Dominion, about midway between the great lakes, its climate is at once moderate and healthy. The Grand Trunk railway runs through the centre of the town, and the Wellington, Grey and Bruce extension of the Great Western railway runs about half a mile west of the centre. Guelph is forty-eight miles west of Toronto, and thirty miles north of Hamilton. It is surrounded by a magnificent agricultural and stock-raising country, being celebrated far and near for the superiority of its products. In its manufactures, the town has a celebrity scarcely equalled by any in the Dominion, and as a commercial town it has perhaps no superior outside of the cities. It has every advantage for the shipment of its products to any part of the world. There is also quite a large wholesale business done here, especially in groceries, liquors, hardware and crockery—the dealers along the line of the Wellington, Grey and Bruce railway and the other northern points finding it to their advantage to procure their supplies here. The limestone quarries of Guelph give her ample building material of the best quality. Large quantities of lime and building material are annually exported, and are of considerable commercial importance.

The town is situated among several hills, with two branches of the River Speed, which give it something of a picturesque aspect when viewed from a distance. The public buildings and churches compare with any in towns of far larger size, both for taste displayed in their erection, and for capacity. The business is all on the west side of the River Speed, the East being ranged with beautiful private residences, rising from the river bank, upon a series of hills, 800 feet above Lake Erie. The Town limits are three miles square; thus affording ample room for expansion.

The original plan laid down by the projector of the town has not been adhered to in the more recent additions. Tradition has it that this individual laid his hand upon the stump of the first tree cut down, and made all his streets diverge from that point, in resemblance of the five fingers. As viewed from the Grand Trunk passenger station this tradition holds good, for here we have, first,

the streets each side of the Market Square, then Macdonnell street, Quebec and Woolwich streets, all centering there. Although the town is somewhat irregularly laid out, her streets are wide, clean and picturesque.

Guelph can boast of an honourable descent. Her title deeds are clearly made out, for there is extant a description from the pen of the talented founder himself, John Galt, of the first blow struck at the first monster maple upon the site of the present thriving town, which will be found in our notice of Mr. David Allan's mill and distillery on page 8. The land, as most local readers are aware, belonged to the Canada Company; and, of a block of 40,000 acres submitted to inspection, the present site was unanimously agreed upon.

On the 23rd of April, 1826, Mr. John Galt, Dr. Dunlop and Mr. Prior, agents of the Canada Company, awoke the echoes of the wilderness by a sturdy stroke, whose effects yet reverberate and will until the grand visions of its founder are amply fulfilled. The founder of the town, Mr. John Galt, recounts how he chose St. George's day for the operation referred to, in order to give additional solemnity thereto.

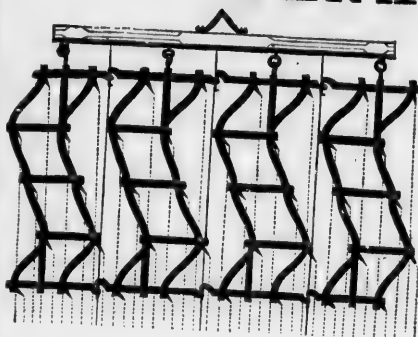
"The founding of a town," says he, "like the launching of a vessel, was an era of which the horoscope might be cast. I accordingly appointed a national holiday for the ceremony; which secretly I was determined should be held in remembrance."

The historic spot where the first tree was felled is to be found near the present Grand Trunk Passenger Station. The embryonic "city" was there and then christened GUELPH with due solemnity.

"The tree," writes Mr. Galt, "fell with a crash of accumulated thunder, as if ancient nature were alarmed at the entrance of social man into her innocent solitudes with his sorrows, his follies and his crimes. I do not suppose that the sublimity of the occasion was unfelt by the others, for I noticed that after the tree fell, there was a funeral pause as when the coffin is lowered into the grave; it was, however, of short duration, for Dr. Dunlop pulled a flask of whisky from his bosom and we drank prosperity to the city of Guelph. The name was chosen in compliment to the Royal Family, both because I thought it auspicious in itself and because I could not recollect that it had ever before been used in all the King's dominions. After the solemnity, we returned to the shanty which had been erected for our shelter. It may appear ludicrous to many readers that I look upon this incident with gravity, but in truth I am very serious; for although Guelph is not so situated as ever to become celebrated for foreign commerce, the location possesses many advantages, independent of being situated on a tongue of land, surrounded by a clear and rapid stream. In planning the city I had an eye to futurity in the magnitude of the parts. A beautiful central hill was reserved for the Catholics in compliment to my friend Bishop Macdonnell, for his advice in the formation of the Canada Company; the centre of a rising ground, destined to be hereafter a square,



# LEEDS AGRICULTURAL IMPLEMENT WORKS, GANANOQUE.



Collard's Patent Flexible Iron Harrow.

Collard's Patent Flexible Iron Cultivator.

Collard's Patent Iron Combined Horse Hoe.

These Implements were awarded the First Prize at the Provincial Exhibition held at Ottawa, in 1875.

MANUFACTURED BY

**GEO. GILLIES,**  
GANANOQUE, ONTARIO.

## HARROW.

These Implements are all made by machinery constructed solely for that purpose, by means of dies, punches, presses, &c., so that each joint is a perfect fit. The head or shoulder of the teeth which forms the tenant or part passing through the bull or bala is made in an oval shape which gives the greatest strength to the tooth with less strain on the bull than any other shaped tenant would. Many suppose the teeth are made of cast iron, such however is not the case. They are made of wrought iron by means of a machine called "Rolls," which presses the tooth into the diamond shape which they present, and leaves them as if they were cast. The teeth are also pointed with the best of steel, the greater part of their length, which makes them almost equal to a steel tooth.

The Harrows are made in narrow sections, ten teeth in a section, which are so connected by hinges, that there is a joint behind each horse and also one between them, by means of which the harrow, whether the horse is in the furrow or the furrow between them, easily adapts itself to the shape of the furrow, and is convenient to handle or move, and the draught is less than any other harrow used.

The Harrow consists of four or more sections, each section complete in itself, and so connected with its fellow that no nut or key is necessary to take the sections apart, which of itself saves a great deal of trouble and annoyance. It can be diminished in size by taking off a section, and enlarged by adding one or more to it so as to suit circumstances. They are made of two sizes of iron—the heavier of 3 in. bar, weighs 180 lbs., cuts eight feet wide, with a draught of a little more than 300 lbs.—the lighter is made of eleven-sixteen in. sq. bar, weighs 100 lbs., and cuts the same width as the heavier Harrow. These Harrows can be made into any number of sections to suit purchasers. But four sections constitute a Harrow.

## CULTIVATOR.

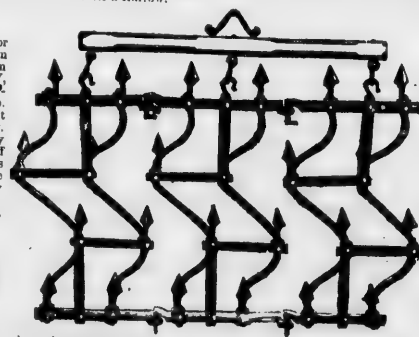
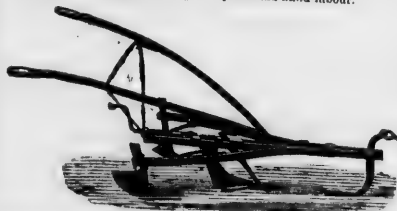
Is constructed either in narrow or wide sections of 1 in. sq. bar, with eight or twelve teeth in each section according to the width. The teeth are made from the same size of iron as the bulls, laid with steel, and rolled into a peculiar form presenting a sharp edge in front. The foot is made in the shape of the letter Y, and resembles a miniature double mould plow. The teeth have the oval tapering tenant, fitted to an oblong socket in the bull, secured by nuts on the top. For loosening up the ground preparatory to sowing the seed, no better implement can be used, and even when the ground is baked hard it pulverizes it completely. The teeth, from having a sharp edge in front, enter the ground easily, and by their peculiar form present very little resistance. For working on heavy stiff soils, fitting fall plowed land for spring seed, summer fallowing and pulling noxious weeds, they cannot be equalled. The general size of the Cultivator cuts a little over six feet, weighs 180 lbs., with a draught of about 325 lbs.—and can be easily handled by a common pair of horses.

The Cultivator can be made in sections two or three feet in width if desirable.

## HORSE HOE.

The cut below shows one section of Mr. Collard's Combined Horse Hoe, Scarifier and Double Mould Plow, and, as shown below, is termed the "Horse Hoe," and is set for the first work in the "root field," shortly after the crop has shown itself.

After having gone over the field with the "Horse Hoe proper," let it lay for four or five days until the weeds become wilted by the sun, then shift your implement into a Scarifier and go through your root crop again. By this means you keep the ground well loosened, soft, the weeds down, and your crop in good condition, at a great saving of expense and hand labour.



After the field has laid five or six days change the implement, take out the scarifier and put in the reversible mould board (a set of which accompanies each implement) so as to draw the earth from plants extending the wings according to the width of the rows. In a few days reverse the mould; go over the crop again and throw the earth back to the plants.

The Horse Hoe combined as Double Mould Board Plow, is used for hilling up corn and potatoes, and throwing up a larger body of earth than could be otherwise done. It is a light one-horse Double Mould Plow, which is useful for drains, planting potatoes, and makes a very simple and efficient potato digger.

All these Implements can be got from the authorized agents at as reasonable rates as direct from the manufactory.

**GEORGE GILLIES,**  
MANUFACTURER.

# Grand Trunk Railway of Canada.

## FROM

*Detroit to Buffalo, Toronto, Ottawa, Montreal, Quebec, and Portland.*

The Grand Trunk Railway has been relaid with Steel Rails, has been narrowed to the uniform American gauge, and has an increased supply of fine Rolling Stock unexcelled by that of any first class line on the continent.

As a through route the Grand Trunk International Line forms an integral part with the magnificent Steamers of the Richelieu and Ontario Navigation Company and the numerous connections by rail and water for the beautiful Lakes Champlain and George, the exquisite scenery of the White Mountains, the grandeur of the Hudson River, and the wild, majestic Saguenay and Gulf of St. Lawrence. It has been made a special undertaking by the management to combine in their issue of Niagara Falls Excursion Tickets every available variety of mountain, rail and water trip at the very lowest rates, and to the public it will be useful information to know that such an issue of tickets is on sale by all the Trunk roads on the continent, and in all the great commercial centres of the United States. A finer, healthier, and more delightful route for the Southern tourist in northern latitudes, and for the lover of beautiful scenery, and cool refreshing breezes is not to be found on this continent.

Visitors to the Centennial Exhibition at Philadelphia, will find a full line of Excursion tickets on sale by a large variety of routes and at various rates via the Grand Trunk and Richelieu Line of Steamers from Niagara Falls to Quebec, White Mountains, Lakes Champlain and George, Saguenay River and Gulf Ports. Agencies are established in New York, Boston, Buffalo, New York State, Detroit, Chicago, and at all principal Western and Southern cities of the Continent.

Passengers from the West and South will find the Northern route to and from the Centennial the most advantageous one to travel by, and to those desirous of selecting the Southern route the advantages offered, via the International Bridge and the Lehigh Valley line, in the magnificent Pullman Cars, which run through from Chicago and Detroit to New York and Philadelphia, are superior to those of any other through line.

W. WAINWRIGHT,

*General Passenger Agent.*

# Condensed Time Table of Grand Trunk Railway.—Going West.

STATIONS.		Express.	Express.	Express.
Leave	Boston,			
"	Portland, (Grand Trunk R.R.)	8.45 A.M.	.....	.....
"	Quebec, " "	1.40 P.M.	.....	7.15 A.M.
"	Richmond, " "	9.45 " "	.....	1.15 P.M.
"	Boston, (via Lowell)	2.30 A.M.	.....	5.15 "
"	Montreal, (Grand Trunk R.R.)	6.00 P.M.	.....	8.00 A.M.
"	Prescott, " "	9.45 A.M.	.....	10.00 P.M.
"	Brockville, " "	2.00 P.M.	.....	2.30 A.M.
"	Toronto, " "	2.27 " "	.....	3.05 "
Arrive	Stratford, " "	12.05 n'ht	7.30 A.M.	12.15 noon
		3.35 A.M.	11.40 A.M.	4.25 P.M.
Leave	Philadelphia, (via Pennsylvania R.R.)	11.55 P.M.	.....	.....
"	Philadelphia, (via Erie R.R. & Lehigh Valley R.R.)	.....	8.45 A.M.	8.00 P.M.
"	New York, (via N. Y. Cent. and Hudson River R.R.)	11.00 P.M.	11.00 "	8.00 "
"	New York, (via Erie R.R.)	.....	.....	7.00 "
"	Buffalo, (Grand Trunk R.R.)	9.30 P.M.	8.15 A.M.	1.00 "
Arrive	Stratford " "	1.45 A.M.	12.45 noon	4.45 "
"	Goderich " "	8.15 A.M.	3.10 P.M.	10.00 "
"	Detroit, " "	7.25 "	6.30 "	10.20 "
"	Chicago, (via Michigan Central R.R.)	7.30 P.M.	6.30 A.M.	8.00 A.M.
"	St. Louis, (via Chicago & Alton R.R.)	8.00 A.M.	9.15 P.M.	9.15 P.M.
Arrive	Milwaukee,	1.30 A.M.	11.30 A.M.	12.50 noon

# Condensed Time Table of Grand Trunk Railway.—Going East.

STATIONS.		Express.	Express.	Express.
Leave	Milwaukee,	.....	1.00 P.M.	4.15 P.M.
"	St. Louis, (via Chicago & Alton R.R.)	7.40 P.M.	.....	7.50 A.M.
"	Chicago, (via Michigan Central R.R.)	9.00 A.M.	5.15 P.M.	9.00 P.M.
"	Detroit, (via Grand Trunk R.R.)	5.45 P.M.	2.50 A.M.	7.30 A.M.
"	Goderich, " "	.....	7.00 A.M.	12.30 noon
"	Stratford, " "	12.35 n'ht	9.20 A.M.	3.05 P.M.
Arrive	Buffalo, " "	4.55 A.M.	1.55 P.M.	8.00 P.M.
"	New York, (via Erie R.R.)	.....	7.25 A.M.	1.40 P.M.
"	New York, (via N. Y. Cent. & Hudson River R.R.)	9.58 P.M.	7.00 A.M.	10.30 A.M.
"	New York, (via Northern Cent. R.R.)	6.45 "	10.10 "	10.25 "
"	Philadelphia, (via Erie R.R.)	8.25 P.M.	6.40 A.M.	2.05 P.M.
"	Philadelphia, (via Buffalo, New York & Phil. R.R.)	.....	7.00 A.M.	.....
Arrive	Philadelphia, (v. Northern Cent. R.R.)	3.30 "	7.00 "	7.35 A.M.
Leave	Stratford, (Grand Trunk R.R.)	1.25 A.M.	9.20 A.M.	3.05 P.M.
Arrive	Toronto, " "	5.15 A.M.	1.05 P.M.	6.50 "
"	Brockville, " "	4.05 P.M.	.....	3.30 A.M.
"	Prescott, " "	4.40 P.M.	.....	4.00 A.M.
"	Montreal, " "	9.30 P.M.	.....	8.00 A.M.
"	Boston, (via Central Vermont R.R.)	.....	.....	10.00 P.M.
"	Richmond, (via Grand Trunk R.R.)	1.45 A.M.	.....	10.35 A.M.
"	Quebec, " "	6.55 A.M.	.....	2.05 P.M.
"	Portland, " "	1.30 P.M.	.....	.....
Arrive	Boston,	5.20 P.M.	.....	.....

## OCTAVE GIRARD.

The large manufactory of elegantly plated coffin handles and trimmings of Mr. Octave Girard is situated at 220 to 226 Notre Dame street, Three Rivers, and was established in 1861.

The building has a frontage of one hundred feet on Notre Dame street, by a depth of one hundred and fifty feet and furnishes employment to about thirty hands—this being the only house in the Dominion which makes a specialty of manufacturing coffin trimmings. Mr. Girard has every facility for turning out first-class work, and makes some of the finest goods to be found anywhere. Undertakers would consult their own interest by ordering direct from the factory at Three Rivers instead of buying from jobbers, as they would save the jobbers' profit of about twenty per cent. This is a fact well worth noting, and undertakers would do well to remember it.

was appropriated to the Episcopal Church for Archdeacon Strachan; and another rising ground was reserved for the Presbyterians. In planning the town, I stipulated that half the price of the building sites should be appropriated to endow a school. The school-house was thus among the first buildings undertaken to draw settlers. Before the foundations of the town were laid, land was valued by the magistrates in quarter sessions at one shilling and three pence per acre, and the settled townships around at seven shillings and sixpence."

The enterprise manifested was, at a very early date, the admiration of visitors, who even journeyed hither from Edinburgh to indulge their curiosity. "The glory of Guelph was unparalleled, but, like all earthly glories, was destined to pass away. It consisted of a glade opened through the forest, about seven miles in length and 130 feet wide, forming an avenue with trees on each side."

Considerable difficulty was experienced in settling upon a name for the place, and it was the cause of a protracted struggle between Mr. Galt and the Canada Company. Long after the celebration of the baptismal rites, the contest was maintained, with the object of changing its name to Goderich. Fate being propitious, Mr. Galt gained and held his point.

For several years there was no baker in Guelph, the residents being thrown upon the charity of a woman who "did for them" once in a while. There was a grist mill belonging to the Canada Company, but it was imperfect, so that people had, for over nine years, to get their flour from Waterloo. An enterprising English baker (Mr. S. Wright,) at length purchased the Canada Company's office and turned it into a bakery. His first attempt, however, was only a partial success. The oven was built of limestone, on a foundation of cedar wood, and was in the open air. It belonged to the Canada Company. Being unused to wood-fires, our baker solicited counsel; unfortunately listening to the witching voice of the

female baker, who directed him to make the oven white-hot. In consequence, the oven crumbled to powder before his eyes, while a greedy multitude helped themselves to the loaves. It is recorded, also, how a person paid \$36 for the carriage of eighteen barrels of flour from Mr. Ewart's of Dundas, to Guelph.

The founders of the town were ambitious. Having provided for the erection of a school, while scarcely a tree was cut, they erected a Market-house and a Bank. The former was a frame building, and was more designed to furnish occupation to the carpenters who might migrate hither, than from any immediate need of such a building. The Bank was of stone. The old schoolhouse, for a long while did duty as a church, being common to pastors of all persuasions. Yet, despite of her imposing public edifices, Guelph, for a tedious duration of time, was little better than a bush settlement.

The noble iron structure that to-day spans the River Speed, and known as the Eramosa bridge, was supplied by a cumbrous affair known as the "Break-neck bridge." Some of the early log houses yet stand to testify to the substantial character of our old pioneers' architecture. Of these, Mr. David Allan's and Dr. Herod's houses are examples, being built of squared timbers, and nowise discreditable to our modernized ideas of taste and comfort. It is not long since the Market Square was a sandy desert; Wyndham street an eyesore, and a stumbling block. Then, woe as sang choruses to the sighing of the sear maple-leaf in the autumn air. The forest was full of game, which Indians constantly brought in to market. "A change came o'er the spirit of my dream;" the woodman's axe is hushed; the armies of blazing stumps, starting the twilight wanderer, have ceased to glow; the hum of factory and workshop stifles the subdued sobs of nature regretful of her departed glories.

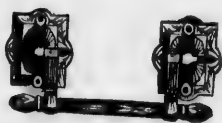
During the years of the Rebellion of 1837-8, Guelph, in common with the entire Province, suffered from trade depression. The equanimity of the town authorities was disturbed by the rumoured presence of a rebel body in Eramosa, who were believed to entertain the sinister design of sacking the infant town. A period of scarcity, little short of famine, in the adjoining townships, materially affected the development of the town, which, for some years, was subject to extreme fluctuations.

The period inaugurating what may be termed the "New Era" is marked by the successful establishment of a newspaper; in 1845. Previous to that date there were two separate efforts to publish a paper, but each failed after a trial of a few weeks. The *Advertiser* was then commenced, under the management of Mr. John Smith, and successfully conducted by him until 1857, when it was purchased by Mr. P. Clerihew. In 1858 it again changed hands, and for the succeeding twelve years was published by Mr. J. Wilkinson. The *Herald* was established 1847 by the late Mr. Geo. Pirie, and successfully conducted by him until his death, a few years since. The *Mercury* was commenced in 1854 by the late Mr.

OCTAVE GIRARD,

Manufacturer of

GOLD AND SILVER PLATED



Coffin Trimmings,

SILVER PLATER, & C.

The Trade Liberally Dealt with.

SEND FOR ILLUSTRATED CATALOGUE  
AND PRICE LIST.

FACTORY AND OFFICE, 220, 222, 224 and 226 NOTRE DAME ST.,

THREE RIVERS, P. Q.

#### GEORGE GRANT,

Manufacturer of hoisting machinery. Established in 1873. The factory and office are situated on the corner of King and John streets, in the town of Dundas. The building is of stone, 60 by 60, two storeys in height; the pattern shop is 60 by 15, two storeys in height. The steam-hoisting machinery manufactured here is of a superior quality, and is sold all over the Dominion. Fifteen-horse steam power is used, giving employment to from fifteen to twenty hands.

#### WILLIAM HOOD,

Manufacturer of all kinds of moulding, turning, fancy scroll sawing, &c. Was established in 1873. The factory has all of the most approved machinery for the manufacture of turning and fancy scroll sawing, window sashes, moulding, railing, &c. The factory is situated at No. 224 Craig street, Montreal, opposite the Cattle market.

#### J. HOWRIGAN & SON,

Axe manufacturers, established in 1850. The office and factory are situated in the town of Dundas. The building is a frame, two storeys in height, 100 x 50. The office and show-room is one storey, 40 x 60. The buildings, yards, etc., cover about half an acre of ground. The average number of men employed is 24, turning out twelve dozen of axes each day, and has a capacity for turning out twenty-five dozen per day. Thirty-five-horse steam power is used and fifty-horse water power. The axes manufactured here are of a superior quality, as the firm use only the best cast-steel.

The axes manufactured here have been awarded the first prize at every exhibition held in the Dominion for the last twenty-five years. Messrs. Howrigan & Sons have had thirty-five years experience in the manufacture of axes.

G. M. Keeling, and was also conducted by him until his death.

1850 saw the opening of the Mechanics' Institute, which, though small, proved the increasing growth of a taste for literary culture. In 1854-5, the Toronto and Guelph line of railway, the first link of the Grand Trunk, was built, giving a marked impetus to material prosperity in Guelph. The Galt and Guelph branch followed, enhancing the beneficial impulse. This first enterprise had the effect of diverting the growth of the town westwards, the portion east of the line, formerly the business centre, remained almost stationary. The period of the Russian war was marked by reckless land-jobbery, the re-action of which for some time impeded the growth of the town. Lands at this time acquired a fictitious value, and town lots were sold at very high prices. In 1855, the Catholic Convent was established upon the historical hill set apart for the Catholic community by John, Galt.

Guelph was incorporated as a town in 1856.

Guelph of to-day is rapidly rising and, as in the case with young cities, tending westward.

The population in 1875, as returned by the assessors was 8,554. It will no doubt number 10,000 in 1877. Distance from Toronto 48½ miles, and from Hamilton, 30 miles.

Guelph is the centre of a rich farming district, whilst stock raising is largely and profitably carried on. Foremost in this department is Mr. F. W. Stone, who went to much trouble and expense in the importation from England, of thorough-bred stock. The stock raised here has a universal reputation, cattle being shipped from Guelph all parts of the country.

The River Speed, by which Guelph is partly engirdled, is a most picturesque and winding stream, whose banks, redolent of scenes of quiet pastoral beauty, whose banks redolent of scenes of quiet pastoral beauty, afford ample material for the tourist's sketch-book. At the Dundas bridge it forms a junction with the Eramosa branch, itself a pretty stream. At certain points of the Speed is to be had excellent trout-fishing. Both streams are much frequented by oarsmen, whose boathouses form a compact mass on the commons near the Dundas bridge.

The Eramosa branch is specially admired by pleasure-seekers. Some distance up is an island, known as "Rice Island," and higher yet, a spot that from its beauty has been christened "Paradise." The approach to this spot is very fine, especially within half-a-mile of Victoria Bridge, where the long straight watery avenue, thickly clad with shrubs, and the bridge seen in the distance, has a really artistic effect. Another place of resort is "The rocks," where good duck-shooting is to be had. Here commence a series of shallows, beyond which boating is impracticable. In winter time, the bay near Dundas Bridge affords excellent skating.

The progress of the Town within the past ten years has been very marked, and no where within the Dominion will there be found one so thriving and prosperous. Its stores vie with those in the cities in appearance and splendour; its wholesale establishments are palatial in their proportions; the private dwellings, especially in the suburbs, are handsome and commodious; its Churches are for the most part models of architecture and elegance, and the same remark will apply to its public buildings. To the stranger on first seeing it, the impression given is one of stability and steady growth, and the more he sees of it, the more is this impression strengthened.

Guelph enjoys excellent railway facilities, and the gravel road system of the County, of which it may be said to be the centre, is unequalled in the Province. These radiate to all parts of the County, and connect with other leading roads from Lake Ontario on the south, to Lake Huron and the Georgian Bay on the north. No inland town in Canada is better situated for trade, and no one enjoys more of it in proportion to its population.

The Town Hall, situated on the Market Square, is a



GEORGE GRANT,  
DUNDAS, ONT.

MANUFACTURER OF

Steam Cranes for Steamboats and other purposes,

Power and Hand Hoists for Warehouses and Factories,

Steam Engines, Pulleys, Shafting and Hangers,

The best Self-Lubricating Hanger in the Market. All Work Guaranteed.

J. HOURIGAN & SON,

Axe and Edge Tool

MANUFACTURERS

AXES AND PLANING KNIVES A SPECIALTY,

DUNDAS, ONTARIO.

WILLIAM HOOD,

284 CRAIG STREET. 284.

MONTREAL.

A FULL ASSORTMENT OF

Black Walnut,

TURNING AND FANCY SCROLL SAWING

WINDOW SASHES, MOULDINGS, RAILINGS, &c.

# THE JOSEPH HALL MANUFACTURING CO.

*Ontario*, established in 1851, F. W. Glen, president. To describe this mammoth establishment would almost be superfluous, as it is well known all over the Dominion as one of our most extensive manufacturing establishments. The Company make Champion Reapers, Mowers and Threshing Machines a specialty. Their factory is built of brick, three storeys in height, four hundred and sixty-five feet front by sixty feet deep, the foundry is built of brick, two storeys in height, 190 x 50; the pattern shop is 100 x 50, two storeys in height, the forging shop is 190 x 50; the warehouse is two storeys in height, 120 x 50. To describe all of the numerous buildings connected with this establishment would be more than we could do, as our space is limited. The offices of the Company are very neatly arranged. There we found the worthy president, F. W. Glen, looking as fresh and good-natured as ever, and receiving everybody in a business and gentlemanly way.

The buildings, yards, etc., cover about five acres of ground. Two hundred men find employment in this establishment; using one hundred and twenty horse steam power.

A substantial stone structure. In this building is situated the town offices, comprising Mayor's office, Police Court, Clerk's office, &c., the meat and vegetable market, and a magnificent new Hall, lately completed. The original cost of the building was \$60,000 and the new Hall just added \$20,000.

The town is divided into four Wards, viz.: North Ward, South Ward, East Ward, and West Ward, each of which is represented at the Council Board by three Councillors.

The Court House for the County of Wellington is a fine stone building, situated on Woolwich street. The Assize Courts are held here in the spring and autumn of each year.

County Court holds two sittings in each month, to try issues by a jury, and once a month to try issues without a jury.

The Criminal Court is held on the second and fourth Wednesday of each month.

The Division and Surrogate Court offices are also situated in this building.

**ST. JOSEPH HOSPITAL.**—Established for the care of sick persons of any denomination or creed, is situated at the Catholic Glebe, near the London Road, and is attended by the sisters of St. Joseph. It is under the charge of the Rev. Father Joseph De Labay.

Guelph General Hospital, situated on the Eramosa Hill, is managed by a board of directors, who are elected by subscribers to the institution. Attended by the medical men of the town, week about in rotation. Visiting hour, 2 p.m., daily, when the patients are all admitted. Resident hospital staff consist of medical hospital assis-

tant, matron and nurses, porter, &c. The building is of white brick, two storeys high, with basement and a mansard roof. The ventilation is good, and it is heated by two large furnaces in the basement. The windows command a good view of the town and surrounding country. The central portion so far only has been built, at a cost of about \$12,000, and represents about one third-part of the design, the whole when completed will present a commanding appearance.

The Mechanics' Institute was established in January, 1850. It has a library of over 2,000 volumes and is well supplied with papers. Wm. Hoskin, Librarian.

## BROCKVILLE.

This beautiful town, with a population of about 10,000, is situated upon the bank of the St. Lawrence, at the foot of the Thousand Islands. The site of the future city was well chosen, the ground gradually rising from the bank of the river, thus throwing each successive street into bold relief, and affording the inhabitants a magnificent view of the noble river as it rolls on to the sea; the outlet of the great chain of fresh water lakes, bearing upon its bosom the products of the west, seeking by our seaports European Markets, and in return carrying the Manufactured fabrics of the East to the inhabitants of the far off provinces and States; the natural highway of the new world, with its magnificent steamers, hourly ploughing the deep blue, with its countless variety of sailing craft, passing and repassing the town, making Brockville one of the most pleasant places of residence in the Dominion. The man of leisure will here find at his very door the finest scenery upon the American Continent; nature in her wildest moods, but a step from the busy haunts of men, the thousand isles, the noble river; while the country to the North is studded with innumerable lakes, abounding with the finney tribe; the primeval forest, stretching away on every side with game in abundance.

The location, from its central position, offers innumerable advantages to the manufacturer, water communication to the East and West, the Grand Trunk Railway connecting with the Intercolonial, and opening up the markets of the Maritime Provinces; in Canada Central, linking the frontier to the Capital of the Dominion on the one hand, and with the upper waters of the Ottawa, the greatest lumbering producing section in the world, on the other. Directly opposite the town, on the American side of the river, terminates the Utica and Black River Railway, placing New York City within a 12 hours' ride, and connecting with the Central and the vast net-work of railways leading to every state in the Union. The growth of the town has been gradual, never fostered by undue excitement, the progress being steady, and upon a solid and substantial basis. The public buildings, including the Court House and markets are large and imposing, evidences of the enterprise and energy of the

**THE**  
**JOSEPH HALL MACHINE WORKS,**  
**OSHAWA, ONTARIO.**

**Established 1851.**

**THE**  
**JOSEPH HALL MANUFACTURING COMPANY,**  
PROPRIETORS, MANUFACTURE  
*Portable and Stationary Steam Engines*  
**AND BOILERS.**

Saw Mill and Flour Mill Machinery of all kinds.

SWARTHOUT'S PATENT OSCILLATING GANG AND MULAY SAW MILLS

**LEFFELL'S DOUBLE TURBINE WATER WHEELS.**

Shingle and Heading Machines and Jointers, Lath and Stave Machines,  
Leather Splitting Machines and Knife Grinders, Engine Lathes of  
all sizes, Planers, Drilling Machines, Boring Lathes, Bolt  
Cutters, Wood Working Machinery of all kinds.

GORDON'S POWER PRINTING PRESSES, WASHINGTON HAND PRINTING PRESS, TAYLOR'S  
CYLINDER POWER PRESS, AND PAPER CUTTERS.

Steam Pumps, Gearing, Shafting, Hangers, Couplings and Pulleys,  
of the latest and most approved Patterns.

**Castings of all kinds Made in Iron or Brass.**

*New Machinery of any kind Built to Order.*

PATTERNS OF ANY DESCRIPTION MADE WHEN DESIRED.

For further information address

**F. W. GLEN, President,**  
**OSHAWA, ONT**

R. HAY & CO.

This celebrated furniture manufactory was established in 1836.

This is one of the largest furniture factories in the Dominion, giving employment to over five hundred hands. The factory is situated on Front street, extending to the Lake, taking in the whole block. It is built of brick, five storeys in height, and is an ornament to Toronto and a credit to the Company. The furniture manufactured by this Company is sold all over the Dominion and England. The warerooms and offices are situated at 19 and 21 King street West. We might continue describing this mammoth establishment, but, as our space is limited, and the name is so well known, it is not necessary to make any further remarks.

inhabitants. The town has *no bonded debt*, an important consideration to the capitalist and manufacturer, as well as the gentleman of leisure who intends becoming a citizen. Taxes are low, being fully 50 per cent. less than in most of the towns of a similar population in Ontario.

During the summer months there is a constant succession of tourists passing from Niagara Falls and the West, down the St. Lawrence, via the rapids. A few miles above the town the islands are embellished with charming summer residences, the resort of thousands from the American cities, who yearly spend a few weeks in the Great Park prepared by the hand of nature, and pronounced by all who have been fortunate enough to visit it to be "the most beautiful spot on the globe." Countless steam yachts transport the visitors from isle to isle, and during the last season for months the river presented a gay panorama of excursion boats, crowded with visitors from every state of the Union, and Province of the Dominion. Gay camping parties located upon the islands, with flags floating, and miniature cannon ready to fire the salute of welcome.

Four large camp meeting grounds have been established, —two upon Well's Island, one upon the Canadian shore, five miles above the town, the other upon the American shore, two miles below the town.

The population of the town has doubled during the past decade, and is rapidly increasing. At the present time real estate is improving in value; large numbers of buildings are being erected, including many private residences of the most substantial character. The signs of thrift and industry are met on every hand, and indications of the most unmistakable character demonstrate that in a very few years Brockville will become a city. Shrewd business men, alive to the brilliant prospects of the town, are purchasing real estate and settling here, knowing full well that their investments are destined to return to them a rich harvest.

Brockville boasts of several good hotels, foremost amongst which stands the St. Lawrence Hall, kept by Mr.

Neil McCarney, a gentleman of long experience in the business and one who "knows how to run a hotel."

A project is on foot for building a large summer Hotel on one of the islands at the western limit of the town, with a bridge connecting with the main land. A grant has also been made for embellishing a small park on Court House Square. In truth upon every side improvement is the order of the day.

Viewed as a place for the transaction of business, or as a home in which to pass the last declining years of life, the town has but few equals. Upon the completion of the Canada Pacific Railway, Brockville becomes the eastern terminus of the great trans-continental route, and, connecting with the American system of railways, will be the Canadian port through which the commerce from China and the Pacific coast will reach the Atlantic markets.

A few hundred yards above the town are a number of small islands, situated in a direct line from the American to the Canadian shore, and forming natural abutments for the construction of an International bridge, which in time is certain to be built to complete the link between the railway systems of the two countries. The channel of the river at this point is extremely narrow, while shoal water extends in a line with the islands, thus favoring the cheap construction of the bridge.

Annually the vast lumber region to the north is becoming more and more important, and from this port each season is shipped millions of feet of lumber for the American markets.

During the past decade several manufactories established, have been highly prosperous and successful, at present turning out large quantities of goods that find a market in every Province. The Municipal authorities are anxious to encourage legitimate enterprises employing skilled mechanics, and for this purpose have granted in several instances bonuses to assist in establishing the same. Parties desirous of becoming citizens of the town, and establishing factories, will meet with a liberal and cordial reception.

The central position of the town to the markets, thus reducing to the minimum the cost of freight; the water communication, by which coal may be brought from the American lake ports, or from Nova Scotia; the abundance of wood material to the north, with which a direct line of railway connects; the rich agricultural region of Central Canada, affording a market for immense quantities of manufactured goods; the low rate of taxation; the unrivalled salubrity of the climate and beautiful location of the town; the railway facilities; the comparative short distance from New York, Montreal and Toronto; the admirable public and high schools; the excellent society and well known public spirit of the inhabitants, will conspire to render Brockville, both as a place of residence and a point for business, one of the most inviting places of location in Canada.

R. HAY & CO.,

CABINETMAKERS

AND

Upholsterers,

19 and 21 KING STREET, WEST,

TORONTO.

FACTORY, ESPLANADE.

## THE HAMILTON TOOL COMPANY,

HAMILTON, ONTARIO,

Manufacturers of Iron and Wood Working Machinery. This Joint Stock Company was organized and went into operation in the early part of the year 1872. At that time it was the practice of those needing first-class tools to purchase them from the United States. In order to supply this want, and to meet the requirements of the trade this Company was established, and the prospectus "to supply machine tools *second to none* and to obtain for the Hamilton Tool Company a first-class reputation" has been faithfully carried out.

The works of the Company occupy extensive premises adjoining the Great Western Railway, and the shop is equipped with the best plant obtained from the leading shops of the United States, and has facilities for turning out work not possessed by any other factory of the kind in the country.

The largest portion of the trade of this Company is in the manufacture of iron working machinery. The patterns of these tools have been selected chiefly from the principal manufacturers in Philadelphia, and on several machines improvements of different makers have been combined. The Company make a specialty of the manufacture of steam hammers, this being the only shop in the country where these labour-saving machines are made.

In wood working machinery a specialty is made of band sawing machines, and all the appliances connected therewith.

A department for the construction of iron railway and highway bridges has been recently established. The company has secured the services of an eminent engineer from the United States, and is now actively engaged in that branch of manufacture, for which it possesses excellent facilities.

## BELLEVILLE.

The capital of the Co. of Hastings, Ont., situated on the Bay of Quinte, at the mouth of the River Moira, 43 miles W. of Kingston. It is a town of considerable importance, is well built, lit with gas, possesses a good harbour, and unlimited water power. Here are agencies for the Bank of Montreal, the Merchants' Bank of Canada, two telegraph companies, and several fire and life insurance and assurance companies. The town contains, besides the county buildings, numerous handsome stores, 2 fine halls, good hotels, several printing offices, from which 2 daily and 3 weekly newspapers are issued, 9 churches, a large college, a convent, 6 common schools, 2 breweries, 2 distilleries, 4 foundries, 3 flouring mills, 2 woollen factories, 4 sash, door and blind factories, a cheese box factory, a chair and cabinet factory, an axe factory, a

sewing machine factory, and several very extensive saw mills. Belleville is an important station on the G. T. R.

## PORT HOPE.

An incorporated town and port of entry of Ontario, Co. of Durham, on the N. shore of Lake Ontario, at the S. terminus of the Midland railway, and on the Grand Trunk, 63 miles E. of Toronto. It is built in a valley and on the side of a hill commanding fine views of the lake, and has churches of 6 or 6 denominations, 3 branch banks, 2 newspaper offices, 2 telegraph offices, a number of stores, several hotels, 5 flouring mills, 1 plaster mill, 1 planing mill, 1 distillery, 2 breweries, and manufactories of woollens, buttons, leather, wooden ware, steam engines, machinery, iron castings, &c. Good water power is afforded by Smith's Creek, which runs through the town. The streets of Port Hope are lighted with gas. The harbour is one of the best on the lake. The trade of this port in lumber and grain is considerable.

## CORNWALL.

The chief town of the United Counties of Stormont and Glengarry, Ont., situated at the mouth of the Cornwall canal, on the River St. Lawrence, with a station on the G. T. R., 67 miles S. W. of Montreal, and 105 miles from Kingston. It is a port of entry. The Cornwall canal gives it excellent water privileges. Several large mills and factories are erected on its banks, among them one of the finest woollen factories in the Dominion, and a cotton factory. The town contains a number of stores, several churches and hotels, an agency of the Bank of Montreal, 2 telegraph offices, and 2 printing offices, from which weekly newspapers are issued.

## BOWMANVILLE.

An incorporated town and port of entry in Durham Co., Ont., with an excellent harbour on Lake Ontario and a station on the G. T. R., 42 miles N. E. of Toronto. It contains the head office of the Ontario bank, a mechanics' institute, several assurance and insurance agencies, 2 telegraph offices, 2 printing offices, from which three weekly newspapers are issued, several churches and hotels, a number of stores, and manufactories of iron castings, machinery, woollens, hoop-skirts, furniture, carriages, leather, boots and shoes, cabinetware, &c. Its port of landing is  $2\frac{1}{2}$  miles from the town, and is better known as Port Darlington.

## WHITBY.

Formerly WINDSOR, an incorporated town of Ontario, capital of the Co. of Ontario, on Lake Ontario, and



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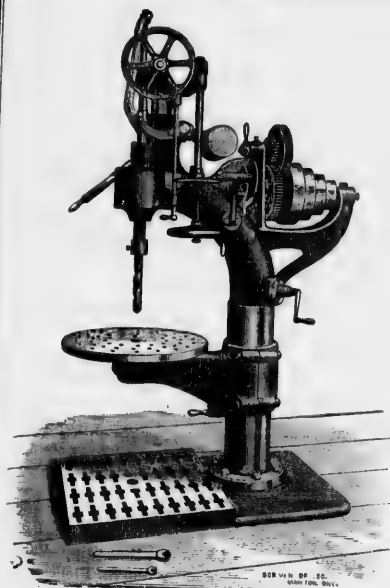
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# THE HAMILTON TOOL CO., HAMILTON, ONT.



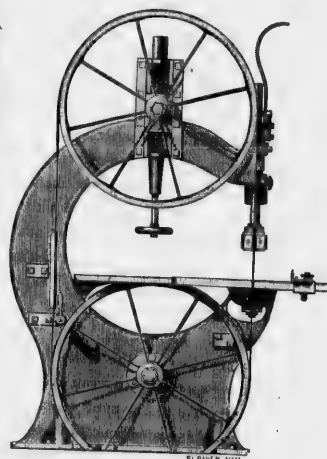
**Iron Working Machinery.**

DRILLING MACHINES—6 Patterns,  
IRON PLANERS—Seller's Patent,  
BOLT AND NUT SCREWING MACHINES—2 Sizes,  
ENGINE LATTICES, from 16 inch swing and upwards,  
STEAM HAMMERS—Rigby Patent, from  $\frac{1}{2}$  cwt. & upwards,  
EMERY GRINDER—3 Sizes,  
SPECIAL MACHINERY, for Locomotive & Car Shops,

MANUFACTURERS OF  
**Iron & Wood Working Machinery.**

Designers and Builders of

**IRON BRIDGES, &c.**



**Wood Working Machinery.**

BAND SAWING MACHINES—3 Sizes,  
RE-SAWING ATTACHMENT FOR BAND SAWS,  
BAND SAW SETTING MACHINE,  
BAND SAW BLADES—all Sizes.  
GANG LATH MACHINES—Hutson's Patent.  
SHAPING, EDGE SURFACE MOULDING AND  
DOVETAILING MACHINES—Boult's Patent.

**DIAMOND MILLSTONES DRESSING MACHINES—LARER'S PATENT.**  
**BRIDGE DEPARTMENT.**

Iron Railways and Highway Bridges, Turntables, Iron Roofs,

AND ALL KINDS OF

**IRON LATTICE AND GIRDER WORK.**

Designs, Estimates and all Information supplied on application to

**A. JAMESON,**

MANAGER.

### ONTARIO GLOVE WORKS.

Established in 1866. The factory and office are situate at the foot of Court House avenue, in the Town of Brockville, Ontario. This is the largest and only first-class glove factory in the Dominion, as the firm manufacture all of their own stock from the raw material to the finished glove. The factory and office are built of stone, three storeys in height, 100 x 50 feet. The storehouse is built of frame, two storeys in height, 30 x 28, and there are other buildings too numerous to mention. On the first floor the skins are taken in and go through the process of turning them into leather. They are then passed to the second floor, where they are finished. They are then sent to the cutting department, and from thence to the third floor where they are manufactured into gloves. On this floor there are about sixty sewing machines run by steam-power. They are next sent to be shaped, packed, and labelled ready for the market. The factory is heated by steam, and is well supplied with all of the most approved machinery for the manufacture of gloves, and mitts. To describe all of the different departments connected with this extensive establishment would take more space than we can at present devote to it. From seventy-five to one hundred hands find employment here. Capital invested from forty to fifty thousand; twenty-five horse steam-power used. This firm make buck, calf and sheepskin gloves a specialty.

on the G. T. R., 29½ miles N. E., of Toronto. The harbour is one of the best on the lake. The town contains, besides the county buildings, churches of 5 denominations, 3 branch banks, a grammar and several common schools, 2 printing offices, issuing weekly newspapers, several assurance and insurance agencies, 2 telegraph agencies, a number of stores, and manufactories of iron castings, mill machinery, agricultural implements, musical instruments, leather, &c. Whitby is a port of entry, and the southern terminus of the Whitby and Port Perry railway. It is an important market town.

This town was originally laid out by Mr. John Scadding, the first patentee of one thousand acres here. It appears as Windsor on the earlier maps of Upper Canada, on which the bay is also marked Windsor Bay, and sometimes Big Bay. Mr. Scadding called the place Windsor, not from the famous royal city on the Thames, but from a small lauded estate of that name, possessed by him and his "forebears" for some generations, at Luppit in Devonshire. The name was altered to Whitby in later years, confusion in the post office and elsewhere having arisen,

through the existence of another Canadian Windsor in the West. If the modesty of the first projector of Whitby had not finally forbade the adoption of the suggested "Scaddington" or "Scaddingfield" as the title of the infant town, it is probable that such would have been at this day the name of the place. Mr. John Scadding died in 1824 on his farm on the Don, near York (Toronto), leaving three sons, John, Charles, and Henry, after each of whom a street in Windsor was named. The latter is rector of Holy Trinity, Toronto.

### NAPANEE.

An incorporated town of Ontario, capital of the Co. of Lennox, situated on the Napanee river, and on the G. T. R., 26 miles W. of Kingston. It contains churches of 5 denominations, 2 branch banks, 2 telegraph offices, 2 printing offices, issuing a weekly newspaper, a paper mill, several hotels, mills and factories, and a number of stores. Napanee is a port of entry.

### NAPANEE MILLS.

A post village in Addington Co., Ontario, 6 miles from Napanee.

### SHERBROOKE,

Sherbrooke, an incorporated town of Quebec, capital of the County of Sherbrooke, on both sides of the River Magog, and on the Grand Trunk and Massawippi Valley railways, and at the W. terminus of the St. Francis and Lake Megantic International railway (now building), 101 miles E. of Montreal, 191 miles S.S.W. of Quebec, and 196 miles N.N.W. of Portland. It contains the head offices of the Eastern Townships Bank, 1 branch bank, the chief office in Canada of the British America Land Company, several assurance and insurance agencies, churches of 5 or 6 denominations, 3 printing offices, issuing weekly newspapers, an academy, about 50 stores, and manufactories of woollen and cotton cloths, flannels, iron castings, machinery, axes, pails, &c.; also saw mills, breweries, &c. It is the seat of the district courts, and returns one member to the House of Commons, and one to the Provincial Legislature.

### PETERBOROUGH,

An incorporated town of Ontario, capital of the County of Peterborough, on the Otonabee river, with a station on the M.R., and also on the route of the proposed Ontario and Quebec railway, 31 miles N.E. of Port Hope, 94 miles N.E. of Toronto. It contains, besides the county buildings, churches of 6 denominations, 4 branch banks, 2 telegraph offices, 2 newspaper offices, about 70 stores,

# ONTARIO GLOVE WORKS.

## JAMES HALL & CO.,



*Manufacturers of*

# Gloves & Mitts,

—AND—

## DEALERS IN INDIAN MOCCASINS,

Brockville, - - - - - ONT.

#### HEINTZMAN & CO.

This the largest and only first-class piano factory in the Dominion was established in 1866.

The factory and office are situate at Nos. 115 and 117 King street, West, Toronto, Ontario. The buildings are of brick, four storeys in height, 59 feet front by 60 feet deep. The first floor is used as offices, show room and packing department. The second floor is used as regulating department. There is a large room on this floor which is used as a wareroom. On the third floor the keys and sounding boards are made; the case rooms also on this floor. The fourth floor is used as finishing and fly finishing, and other departments, such as varnishing and polishing rooms. There is a dry house in connection with the factory, built of brick, lumber yards, &c. This company use only first-class material and are now turning out from six to eight pianos a week, which are shipped to all parts of the Dominion, employing from forty to fifty hands. Mr. Heintzman & Co's. pianos have received over a dozen first prizes at different exhibitions in Canada.

several saw and grist mills, and manufactories of iron castings, steam engines, machinery, agricultural implements, leather, woollens, wooden ware, &c., and has a large export trade in grain, pork and lumber. The streets of Peterborough are well laid out and lighted with gas. A handsome bridge connects the town with Ashburnham, a thriving village on the opposite banks of the Otonabee. Previous to 1825, Peterborough was known as Indian Plain or Scott's Landing. It was covered with scattered oaks and small brush, and was on the portage to Lake Chemong, the head of the Otonabee navigation. In that year Col. Peter Robinson, of Newmarket, (a brother of the late Chief Justice of Ontario,) was sent out by Earl Bathurst in charge of 2,000 emigrants. He conducted them from the south of Ireland to the Indian Plains, where he encamped them and subsequently settled them in the neighbouring townships. Col. Robinson then lived in a tent on a rising ground close to the river side, and one day at a dinner party which he gave in his tent the question arose what name to give the future town. It was then decided that it should be called Peterborough, after Col. Robinson. There were present at the dinner the Hon. Thomas A. Stewart, Mr. Alex. McDonald, Dr. Reid, of Perth, Mr. Sydney Bellingham, M.P. for Argen-teuil, and one or two others. The name was adopted and Col. Robinson gave orders that it should be laid out in town and park lots, and promised each of his guests a town and park lot. The land upon which the town stands was then valued at \$1 an acre. Population, 6,000.

#### THREE RIVERS,

A city of Quebec, capital of the County of St. Maurice, at the confluence of the Rivers St. Maurice and St. Law-

rence, and on the line of the proposed North Shore railway, 90 miles from Quebec, 90 miles from Montreal. It is one of the oldest towns in the province, having been founded in 1618, and was for a long time stationary as regarded enterprise and improvement; but of late years it has become a most prosperous place, a change produced principally by the extensive trade in lumber which is carried on on the St. Maurice and its tributaries, and also by increased energy in the manufacture of iron wares, for which the St. Maurice Forges, about 3 miles distant from the town, have always been celebrated in Canada. Three Rivers is the residence of a Roman Catholic Bishop, whose diocese bears the same name, and contains a Roman Catholic Cathedral, a parish church, a Church of England, a Scotch kirk, and a Wesleyan chapel, an Ursuline convent with a school attached, a college, English academy, and several other schools, 2 branch banks, 2 printing offices, issuing weekly newspapers, agencies of 2 telegraph and several insurance and assurance companies, and a number of stores. The chief trade of the town is in lumber, which is shipped in large quantities direct to South America, the West Indies, England and the United States.

The streets of Three Rivers are lighted with gas. It sends one member to the House of Commons and one to the Provincial Parliament. The district of Three Rivers comprises the counties of St. Maurice, Nicolet, Champlain and Maskinonge. Population of city, 8,114.

#### THE ISLAND OF ANTICOSTI,

Lies directly in the mouth of the St. Lawrence, between the 49th and 50th degrees of latitude, nearly the same as that of the north of France, and contains an area of 2,460,000 acres of land of the best quality, similar, says Sir William Logan, the eminent Canadian geologist, to the fine arable soil of Canada West, and the Genesee County, New York State; it possesses over 300 miles of sea coast, is about 140 miles long, and 35 miles broad in the widest part, with an average breadth of 27½ miles.

Anticosti is made mention of so long ago as 1660, in the geographical folio work of the celebrated loyalist, Dr. Peter Heylyn, known as "Cosmographia." He says that the proper name for the island is Naticotee, which it is supposed was corrupted by the Spaniards, who fished in and off the St. Lawrence at that period, to its present appellation. He reports that the island was then held by a tribe of Indians, who were exceedingly kind and friendly to such mariners as landed there. The fief of the island was granted by Louis XIV, about 1680, to Sieur Louis Joliet, as a recompense for his discovery of the mouths of the Mississippi and the Illinois, and other services rendered to his Government; and it seems to have been held of so little account in its primitive state that here Charlevoix, writing about 1722, in his "Histoire du Canada," says that Joliet "would, perhaps, have preferred one of the smallest lordships in France."

# Messrs. HEINTZMAN & CO.,

MANUFACTURERS OF

SQUARE,  
UPRIGHT



AND  
GRAND

# PIANOS.

GENERAL AGENTS FOR

## The Celebrated Estey and Taylor and Farley Organs.

**TORONTO: 117 King St. West, Next Rossin House.**

We have much pleasure in stating that we have just completed extensive repairs and increased accommodation to our establishment; and we cordially invite all our patrons to visit our new Piano Hall, which for elegance, decoration and spaciousness, far surpasses anything of a like description in the Dominion.

The question of Home Productions has become what may be called a national subject. Could home manufactures be fostered and encouraged, immensely increased labor would be imported into our country, and tens of thousands of dollars be kept here.

**OURS IS A HOME ENTERPRISE.**

We claim to manufacture a piano in every respect equal to the best imported,—buyers thus saving expensive freight and a heavy duty.

*All our Pianos are Overstrung and have Heintzman's Patent Bridge.*

**OUR IMPROVED BRIDGE.**

**EXTRAORDINARY BRILLIANCY IN TREBLE.**—Our Mr. HEINTZMAN, after much experiment, has discovered an application, by means of an Improved Bridge, patented December, 1873, by which the whole instrument is strengthened and a brilliancy given to the Upper Notes heretofore unattainable.

Some of the best performers in the Dominion have examined our new Pianos with the Improved Bridge, and they have expressed their highest admiration of the improvement. It would be very gratifying to us to receive a call from connoisseurs in music for the purpose of their hearing the marvellous clearness and singing properties of our Pianos.

Our Tuners periodically visit the various parts of the country in order to keep our Pianos in a condition satisfactory to our Patrons. We give a **GUARANTEE for FIVE YEARS** with all our Pianos.

**MONTHLY OR QUARTERLY PAYMENTS TAKEN ON PIANOS OR ORGANS.**

**PIANOS REPAIRED.**—With a full staff of the best workmen, we are enabled to repair Pianos at moderate cost and on short notice. We claim that Pianos can be repaired cheaper and better where they are manufactured. We are the only manufacturers in Toronto.

A. HARRIS SON & CO.

Manufacturers of the Kerby mowers and reapers, was established in 1864. The office and factory are situated on Colborne street, Brantford, Ont. The buildings are of brick, four storeys in height, covering over one acre of ground; and are too numerous to mention in detail, seventy men find employment in this factory. Thirty horse steam-power is used here.

In La Houtan's "History of Canada," is a chart of the St. Lawrence, and a plan of the island, showing Joliet's Fort on the western flank. La Houtan was a French marine officer, and he mentions that Joliet was captured in his boat off the Island by the English expedition against Quebec, in 1690, under Admiral Phips, but released after the failure of that expedition. Mr. T. Aubury, who sailed with General Burgoyne's army in 1756, devotes three pages of his work, "Interior Travels through America," to the seal fisheries of Anticosti, and the method of catching these animals between the continent and the adjacent islands.

So much for the early records of Anticosti. When the feudal system became abolished, which had long prevailed under the French domination of Canada, there being no tenants on the island, the seigneur, or lord of his manor, became possessed of the whole soil in fee simple, since which time it has been held jointly by a variety of persons, chief amongst whom are the Forsyth family. The title to this immense possession seems to have been fully acknowledged by the Parliament of Canada, as an act was passed during the last session (in the spring of 1873) incorporating a company to develop the resources of the island.

Anticosti slopes gradually from its elevated northern coast to the grassy savannas which skirt the southern shore, and thus, in a great measure, the fertile portions of the country are protected from severe winter winds. Its climate is very healthy, and it certainly is not severer than that of the other maritime provinces. The atmosphere is pure and clear, and free from fogs which are so frequent on and around Newfoundland. The winter's cold is considerably tempered by the waters of the Gulf of St. Lawrence, and the heat of summer is, to a certain extent, moderated by the same influence. Vegetation progresses very rapidly, and crops come to perfection in good season. The soil is of good quality, being a rich loam intermixed with limestone; valuable forests are to be found on the greater part of the island, and although the timber generally is not of the largest size, it is of a superior quality, and well adapted for ship-building.

The fisheries around the island, which have been hitherto comparatively neglected, are valuable and important. Speaking of them Commander Lavoie, of *La Canadienne*, in his report, in 1870, to the Dominion Government, says: "This island is beginning to be frequented and settled by hardy fishermen, tempted by the

desire of participating in its rich fisheries, which up to the last few years were, comparatively, unexplored. . . . The importance and value of its fisheries have increased along with the number of fishermen. The waters bordering on Anticosti are stocked with the same kinds as are to be met with on the south and north coast of the St. Lawrence."

In his report for last year (1872) Commander Lavoie says: "Large shoals of herrings visit its shores about the same time they repair to Pleasant Bay, Magdalen Islands. A schooner, from Prince Edward Island, caught last spring with the seine 1,100 barrels of herrings in one day." He goes on to say: "The whole of Anticosti abounds with fish of all sorts, but harbours are scarce, even for fishing boats. Codfish on this coast are all large, and no finer are seen even on the Miscou and Orphan Banks." The number of fishermen frequenting its banks increases every year. Even when codfish was a failure every where else in the Gulf, it did not fail at Anticosti. Halibut are so plentiful that 199 barrels were taken in one day.

The seal fishery, which could be carried on here as well in winter as in summer, might be turned to profitable account, large numbers of these animals being visible during the former season, and thousands of them being observed in the summer and autumn at the entrance of almost all the bays and rivers, where they remain comparatively unmolested.

Hunting on the island is of considerable value, though of far less importance than its fisheries. The animals, whose skins are of marketable value, which are found on the island, are black bears, which are very abundant, otters, martens, and the silver, grey, red, black, and, sometimes, the white fox. Great quantities of ducks, geese, and other wild fowl resort to the lakes and the bays of the island.

There are numerous natural harbours round the coast, which are comparatively safe in all winds—Ellis Bay and Fox Bay being especially so. The former is distant about eight miles from West End Lighthouse on the south side, the latter is fifteen miles from Heath Point Lighthouse on the north side. Ellis Bay is two miles in breadth, with deep water three-fourths of a mile from shore, but only with from three to four fathoms in shore. Fox Bay is smaller, the distance across its mouth is only one mile and a half, with deep water in the centre, extending up the bay nine-tenths of a mile, but shoaling near the shores of it; the whole length of the bay being one mile and two-tenths. Mr. Gamache, who has resided at Ellis Bay for upwards of twenty-five years, states the harbour to be perfectly secure in all winds and at all periods. A gentleman from England, in 1853, a member of Lloyd's, who visited the island to inspect a vessel which had been wrecked on the coast, declared he considered the harbour a "most excellent one," so much so that he should, on his return to England, make it especially known at Lloyd's, and added further, that there are many places in



HALL & JONDRO,

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Boots and Shoes,

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A. HARRIS, SON & CO.,

MANUFACTURERS OF

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MOWERS AND REAPERS,

BRANTFORD, ONT., CANADA.

WE MANUFACTURE

Combined Machines, Single Mowers and Single Reapers.

Good Facilities for filling large orders. Low Freight Rates to any part of the World.  
Special Terms for large quantities. Correspondence invited. Prices on application.

ORDERS SOLICITED.

#### MESSRS. HUGH HENNESSY & BRO.

Were established 1861. The factory is situated at Nos. 18 and 20 Hughson street, North, Hamilton, Ontario. They employ from eighteen to twenty hands. The vaults, doors and locks manufactured by this establishment are superior to any in the Province of Ontario, where they do an extensive business.

#### R. JELLYMAN.

The paper box manufactories of Mr. R. Jellyman, Montreal, rank amongst the oldest manufacturing industries of the city, the house having been established in 1835. The office and one factory are at 5-2 Craig street, the other in Cotté street, next door to the Theatre Royal. The Craig street factory is built of brick, four storeys high, has a frontage of sixty-four feet and a depth of one hundred. The Cotté street factory is a handsome structure of brick, four storeys high, with a frontage of forty-five feet and a depth of one hundred and four; a fifteen horse-power engine is used in this factory and constant employment is given to about one hundred and twenty-five hands. Both factories are thoroughly well supplied with all the latest improvements in the way of machinery for turning out first class work, and the boxes made by Mr. Jellyman are second to none made on this Continent. Mr. Jellyman makes a specialty of egg boxes, which for lightness, durability and convenience are unsurpassed.

#### W. L. KINMOND & CO.

The factory of Messrs. W. L. Kinmond & Co. is situated in Cote St. Paul, one of the suburbs of Montreal, and is a substantial brick building, two storeys high, occupying about two acres of ground. The office and wareroom is at 393 St. Paul street, a fine four story stone building. The factory was established in 1866, and has turned out some of the best English oak tanned belting, files and rasps, spiral springs, etc., ever made in Canada. The firm gives constant employment to about one hundred hands; and keeps in stock, beside their own manufactures, a large assortment of lace-leather, cotton waste, canvas hose, rubber packing, etc.

England, and other countries, carrying on large maritime commerce, which have not got so deep, so spacious or so safe a harbour as Ellis Bay. This gentleman had been three times round the world as captain of an East Indian.

The excellent position of Anticosti in regard to ships, commerce, &c., is easily seen, when we remember that every vessel must take one or other of the channels formed by the island, whether having passed from the Atlantic, or intending to pass to the ocean through the straits of Belle Isle, through the more frequented passage between Newfoundland and Cape Breton, or through the Gut of Canso, or whether running between Quebec and those portions of Canada and of the maritime provinces

lying on the Gulf of St. Lawrence. Vessels taking either of the channels formed by the position of the island must pass close to the island in consequence of the comparative narrowness of the northern one, and of the strong south-east current which always runs along the southern channel. To avoid this, and the risk of being driven on the rock-bound coast of the south shore of the Gulf and river, vessels generally stand out till they make the West Point of Anticosti, close to Ellis Bay. The inner anchorage of this bay has a depth of from three to four fathoms at low water, with very excellent holding ground (gravel and mud); the outer portion of the anchorage could be materially improved at a trifling expense, so as to be able to contain in safety, during all winds, almost any number of vessels of the largest size. If docks were constructed at Ellis Bay, with a patent slip, it would be an admirable position for the repair of vessels stranded or damaged throughout the Lower St. Lawrence, many of which are now broken up by the sea or dismantled by wreckers before assistance can be obtained from Quebec. For steam tugs employed for the relief of vessels in distress, this might be made an excellent station; here, also, a few steamers or gunboats could command the two entrances to the river, or send out from this convenient and central spot cruisers to any part of the Gulf.

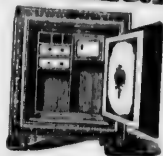
The establishment of depots of coal at Ellis Bay and Fox River would be an advantage the importance of which it would be hard to estimate, coal being easy procurable from Nova Scotia, and laid down at either harbour at a cost not exceeding from \$3.50 to \$4 per ton. Considering the fact that upwards of 2,000 vessels annually arrive from Europe in the season, besides a large fleet of coasting and fishing vessels, all of which must pass within sight of the island, some idea can be formed of the importance to be attached to the position and capabilities of these harbours for commercial purposes.

The company which has been formed for the purpose of colonizing the island of Anticosti, and for working and developing its resources, propose to lay out town sites at Ellis Bay, Fox Bay, and at the South West Point. The chief town will be at Ellis Bay, where the principal place of business will be established. The beautiful situation of the first of these places, with its bracing sea-air, must eventually make it a resort for thousands of pleasure-seekers, since seabathing could there be combined with many other summer sports and amusements. The capital of the company is \$2,500,000, divided into 25,000 shares of \$100 each. The island is to be divided into twenty counties, of about 120,000 acres each, sub-divided into five townships. It is further proposed to lay a submarine telegraph cable to connect the island with the mainland; to build saw-mills and grist-mills, establish a bank and a general hospital, churches and schools, and to establish, moreover, five fishing stations, in different parts of the island, where temporary buildings are to be erected for curing and drying fish.

Operations and improvements of such a kind have every

# HUGH HENNESSY & BRO. Blacksmiths & Manufacturers of VAULT DOORS,

LOCKS, FENCES,  
Yates' Celebrated Combination Safe  
VAULT DOORS AND



GRATES, &c.,  
Locks Direct from the Factory.  
LOCKS A SPECIALTY.

Tenders given for Iron Work of Bridges and Buildings.  
SHOP :—Nos. 18 and 20 HUGHSON STREET NORTH, HAMILTON.

ESTABLISHED 1835.

## R. JELLYMAN,

Manufacturer of all kinds of

### Paper



### Boxes.

582 Craig Street,

And Cote Street,

**NEXT THEATRE ROYAL,  
MONTREAL.**

## W. L. KINMOND & CO.,

**898 ST. PAUL STREET.**  
Post Office Address, Montreal. Works, Cote St. Paul.

MANUFACTURERS OF  
**English Oak Tanned Belting, Files and Rasps,  
Railway Steel Spiral Springs,**

Have in Stock :—Full Assortment of Files, Belting Lace Leather, Cotton Waste, Canvas  
Hose, Rubber Packing and Hose, Governors, Supplies Generally.  
Have your old Files Recut and save 33 1/3 per cent.

### H. R. IVES & CO.

Messrs. H. R. Ives & Co. are the successors of the old and widely known firm of Ives & Allen, manufacturers of hardware, stoves, iron railings, &c., and since the formation of the new firm, some three years since, it has amply proved that the high reputation of its predecessors has been more than sustained. The very large establishment of the firm is situated on King, Queen and Prince streets, Montreal, occupying about 50,000 square feet of ground and giving employment to over 250 hands. The warehouses and offices are 113 to 125 Queen street, and have a frontage of 121 feet with a depth of 100 feet, and are five storeys high. In this building is the show room, where an immense display of iron work of all kinds is constantly kept on hand. This building is connected with the workshops by a light, handsome iron bridge across Queen street. The workshops are four storeys high and are fitted up with all the modern appliances for saving labor and the rapid and extensive production of goods. In the rear is the main foundry, 180 feet by 100 feet; it contains two cupolas, and castings of every description, both heavy and light, are produced in large quantities. Messrs. Ives & Co. manufacture a very large quantity of ornamental iron railings and have supplied some of the finest public buildings as well as private residences, amongst other places furnishing the rails and gates for the Parliament Buildings, Ottawa. They are at present engaged in preparing the iron work for the Windsor Hotel and also for Emmanuel Church.

where had the most beneficial result upon the industry, wealth and progress of the country in which they were attempted, and with the great resources and favourable geographical position of the Island of Anticosti, there is no reason to doubt that they will be attended there with similar results.

Sir William E. Logan, in his Geographical Report of Canada, after referring to deposits of peat, or peat-bogs, in different parts of Canada, says: "The most extensive peat deposits in Canada are found in Anticosti along the low land on the coast of the island from Heath Point to within eight or nine miles of South West Point. The thickness of the peat, as observed on the coast, was from three to ten feet, and it appears to be of an excellent quality. The height of this plain may be, on an average fifteen feet above high water mark, and it can be easily drained and worked. Between South West Point and the west end of the island there are many peat-bogs, varying in superficies from 100 to 1,000 acres."

Near South West Point there are several large salt ponds, which, if labour was abundant, might be turned to a profitable account in the manufacture of salt, a manufacture which would become of some value to a great part of our North American fisheries, which, as well as the greater part of Canada, are now supplied with salt from the Bahamas, and from England or the United States;

and for curing fish and provisions, bay salt, formed from the sea and from salt ponds, is the most valuable. In consequence of there not having been a sufficient supply of salt upon the island, an immense quantity of fish caught at Anticosti a year or two ago were rendered useless. This was alluded to by Commander Lavoie, of *La Canadienne*, in his report for 1871, where he says that "fishing was abundant this season, the yield being reckoned at 9,500 quintals of cod, . . . but the greatest drawback arose from the difficulty experienced in curing fish, from the want of salt." Some of the Bahama Islands are retained merely on account of the salt ponds which they contain, and in Ceylon a large revenue is derived from the salt works carried on in that island.

In Commander Lavoie's report for 1872, quoted from before, he says that geologists and others who have visited the interior of the island, agree in stating that its soil is rich, and that more than one million acres can be cultivated with advantage. Clearances have already been made at Gamache (Ellis Bay), at South West and at West Point where vegetables and grains of the district of Montreal and Quebec flourish. Stories, however, of the numerous wrecks that have occurred on the shore of Anticosti have spread such terror that up to 1861 nobody had thought of settling there. The reefs of flat limestone, extending, in some parts, to one mile and a quarter from the shore; the want of anchorage of a great portion of the coast, and, above all, the frequent fogs, justify this belief, in part, but not in so great a degree as to render reasonable the dread with which they seem to have been and which can only have arisen from the natural tendency to magnify danger, of which we have no precise knowledge.

Four lighthouses are erected on Anticosti; one on Heath Point, at the east end of the island; another at South West Point, the third on West Point; and the fourth at South Point, at Bagot's Bluff. That on Heath Point is a round tower, built of a grayish white limestone, quarried on the island, and is ninety feet high. It shows, at an elevation of 110 feet above the level of high water, a fixed white light, which in clear weather should be visible from a distance of fifteen miles. The lighthouse on South West Point is built of the same stone as the previous one, quarried on the spot, is seventy-five feet high, and of the usual conical form, exhibits a white light, which revolves every three minutes, and is visible at fifteen miles, with the eye ten feet above the sea; with the eye at fifty feet, it can be seen nineteen and a half miles, and with the eye at an elevation of 100 feet, it will be visible about twenty-three miles. The third lighthouse, erected on the West Point of Anticosti, is a circular stone tower, faced with fire brick, 109 feet in height. It exhibits, at 112 feet above high water mark, a fixed white light, visible from a distance of fifteen miles. A gun is fired every hour during fog and snow-storms. The lighthouse at South Point is a comparatively new building, the light having been first exhibited in

# H. R. IVES & CO.,

(Successors to Ives & Allen,)



MANUFACTURERS OF

## HARDWARE,

## STOVES,

## Iron Railings, &c.,

## OFFICES AND WARHOUSES,

## 113 TO 125 QUEEN STREET,

*MONTREAL.*

#### JODOIN & CO.

Messrs. Jodoin & Co., manufacturers of stoves, &c., having an extensive factory in Longueuil and handsome show and sales rooms at 309 St. Paul street, Montreal, although only established in 1874, have already run up a business of over \$100,000 per annum, with a steady increase, and they are able to afford steady employment to nearly one hundred men. Mr. A. Jodoin, is personally very popular as an Alderman of the City of Montreal and has been twice elected member of Parliament for Chambly County.

August, 1870. It is a hexagonal tower, painted white, seventy-five feet above high-water mark, with a revolving white flash light every twenty seconds. It should be seen at from fourteen to eighteen miles distance, and is visible from all points of approach. A powerful steam fog-whistle is also stationed there, about 300 feet east of the lighthouse. In foggy weather, and during snow-storms, this is sounded ten seconds in every minute, thus making an interval of fifty seconds between each blast, which can be heard in calm weather, or with the wind, from nine to fifteen miles distance, and in stormy weather, or against the wind, from three to eight miles. The lights are exhibited from the 1st of April to the 20th of December of each year.

Provision depots are also established on the island for the relief of wrecked crews. The first of those is at Ellis Bay, the second at the lighthouse at the South West Point; the third, which was formerly at Shallop Creek (Jupiter River), was this year removed to South Point, where the new lighthouse and steam fog-whistle have been located, and the fourth at the lighthouse on Heath Point. Direction boards are erected on the shore, or nailed to trees, from which the branches have been lopped off, near the beach, and on various points of the coast. These boards are intended to point out to shipwrecked persons the way to the provision posts.

Vessels are more frequently lost on Anticosti in the bad weather, at the close of navigation, than at any other time, and their crews would perish from want and the rigours of a Canadian winter, if it were not for this humane provision, made by Government, in the absence of settlements on the island. As, however, the population begins to increase, and dwellings become scattered about, there will be the less urgent need for these depots.

The currents around the Island of Anticosti are very variable and uncertain, and to this cause may be attributed many of the shipwrecks that have from time to time occurred there. At the north point of the island there is a current almost always setting over to the north-east, being turned in that direction by the west end of the island. Confined as it is, within a narrow channel, it is very strong. All along the south coast between the south-west and west points, the swell and the current

both set in shore, and the bottom being of clean flat limestone, will not hold an anchor. It is also by no means uncommon in summer for the breeze to die away suddenly to a calm.

The tide around the island only rises from four to seven feet.

It not unfrequently happens that when the current from the northward is running, another from W.N.W. comes along the south coast, in which case they meet at a reef off Heath Point, and cause a great ripple or irregular breaking sea. This takes place when a fresh breeze is blowing along the land on either side of the island. A wind has been observed on the north side from N. or N. E., whilst that on the south side was W.N.W., and yet never meeting round the east end of the island. Between the two winds there is usually a triangular space of calm, and light baffling airs, extending from five to eight miles. In the space between the winds there is often observed a high cross sea, and constantly changing light airs, which would leave a vessel at the mercy of the current and in great danger of being sent on the Heath Point reef.

Streams of excellent water descend to the sea on every part of the coasts of Anticosti. They are for the most part too small to admit boats, becoming rapid immediately within their entrances, and even the largest of them are barred with sand, excepting for short intervals of time, after the spring floods, or after continued heavy rains.

There is no doubt that, in a very few years there will be a numerous population on the island, as applications for land are being constantly received by the Anticosti Company, and the survey is being pressed forward with all practicable speed. Had the island been thrown open for settlement years ago, it would be in a very different position, commercially speaking, from what it now is; but once opened, and found to be equally productive with the maritime provinces and Prince Edward Island, there is no reason why in a few decades it should not rival the latter. For long neglected and discarded, Anticosti now has a chance of prominence, and the Dominion will hail the advent of another link in her chain, which, though it may never assume the title now borne by Prince Edward Island, "the gem of the Gulf," may yet prove as valuable a jewel in the diadem of Confederation.

#### NIAGARA RIVER.

This River forms the outlet of Lake Erie and a part of the bound ary between Canada and the United states. It commences at Black Rock, 2 miles N. of Buffalo, and flowing northward, enters Lake Ontario after a course of about 34 miles. About 3 miles below its southern extremity it divides into two arms, which embrace an island called Grand Island, 12 miles long, and from 2 to 7 miles wide. Two or three miles below Grand Island the entire waters of the Niagara are precipitated over a perpendicular ledge of rocks about 160 feet in height, forming



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# JODOIN & CO.,

## IRON FOUNDERS, *STOVES,* MACHINERIES, &c.

*Sale Rooms:*

309 St. Paul St.,  
MONTREAL.

*Foundry:*

LONGUEUIL,

PROV. QUEBEC.

#### WELLINGTON FOUNDRY.

Messrs. Inglis & Hunter, manufacturers of steam engines and boilers, water wheels, flour and saw mill machinery, &c., was established in 1859.

The factory and office are situated on the Speed River in the Town of Guelph. The buildings are of stone, two stories in height, extending from Perth Street to Speed River, covering about one and a half acres of ground. This is the most extensive establishment for the manufacture of steam engines, boilers, water wheels, flour and saw mill machinery in Guelph, or the surrounding country. The firm has all of the most approved machinery for the manufacture of the above named goods. From forty to fifty hands are employed in this establishment. Twenty-five horse steam-power is used here, passing power from belt to pulley and shaft and running the whole machinery of this extensive establishment.

the Niagara Falls, the most stupendous cataract on the globe. The rapids above the falls have a descent of 57 feet in about half a mile. The river is navigable 7 miles to Lewiston, and above the Falls for small boats from the old Fort Schlosser to Lake Erie, near 20 miles. Two miles below the cataract the river is spanned by a magnificent suspension bridge, 800 feet in length.

#### NIAGARA FALLS.

A mighty cataract situated partly in Canada and partly in the United States, on the Niagara, a river 34 miles in length, running from Lake Erie to Ontario, and here pouring the waters of the Great Lakes over a perpendicular precipice, 165 feet in height. The Falls are about 20 miles below the entrance to the river, at the N.E. extremity of Lake Erie, and 14 miles from its junction with Lake Ontario. About 3 miles below its commencement, the river divides into two arms, which embrace an island, called Grand Island, 12 miles long, and from 2 to 7 miles wide. The banks of the upper portion of Niagara river are low, not usually exceeding 20 or 30 feet, and the current is comparatively moderate. Nearly 3 miles below Grand Island the rapids (scarcely less interesting than the Falls themselves) commence, and after a course of rather more than half a mile terminate in the great cataract. Goat Island, a quarter of a mile wide and half a mile long, from N. to S., extends to the very brow of the precipice and divides the Falls into two portions, the higher of which is on the American side, but the greater body of water on the Canadian. Below the Falls the river runs between perpendicular cliffs for 3 or 4 miles in a channel of from 300 to 800 feet wide, with great force and impetuosity till it is released from its narrow and rocky bed, below the Queenston Heights, from whence it flows tranquilly into Lake Ontario. Between the Falls and Queenston (where navigation commences) occur two rapids, caused partly by the narrowing of the bed of the river and partly by the rocks

at the bottom. At the head of the first rapids, two miles below the Falls the river is spanned by a suspension bridge 800 feet in length and 230 feet above the water. At the southern extremity of the first rapids an angle in the river causes a reflex in the current, which forms a number of eddies, commonly called "The Whirlpool," more remarkable for the heaping up of the waters in the middle of the river, by the impetus of the current, than for any peculiar violence of the whirlpools themselves. Below this pool is another rapid of about a half mile in extent.

#### OWEN SOUND.

Originally SYDENHAM, an incorporated town and port of entry of Ontario, capital of the Co. of Grey, situated on Georgian Bay at the outlet of the River Sydenham, and at the Grey terminus of the T. G. & B. R., 44 miles from Mount Forest, 131 miles N. W. of Toronto. It is pleasantly situated on a small plain surrounded on three sides with wood crowned heights, and contains manufactories of mill machinery, turbine water wheels, agricultural implements and engines, sewing machines, leather, wooden ware of all descriptions, Canadian Tweed and other woollen cloths, &c., also two breweries, two brickfields, flour and saw mills, 6 large grain warehouses and elevators, and various smaller works. Here are agencies of the Merchants and Molesons Banks, Montreal and Dominion Telegraph companies, several insurance companies, a number of fine stores, several pretty churches and good hotels, a commodious town hall, a court house, jail and registry office, and three printing offices, issuing weekly newspapers. The harbour of Owen Sound is the best on Lake Huron. It is 12 miles long from the town to its mouth, where it is 6 miles wide, and throughout its entire length it is completely sheltered on both sides. It has good anchorage ground and considerable depth of water, and is navigable for vessels of the largest capacity on the lake. A large number of vessels are engaged in the grain and lumber trade.

#### ORILLIA.

A flourishing post village of Ontario, Co. of Simcoe, prettily situated on Lake Couchiching (at the northern extremity of Lake Simcoe,) and at the junction of the Northern and Midland railways, 22 miles from Barrie, 86 from Toronto. It contains 3 churches, a branch bank, 2 telegraph offices, 3 printing offices, issuing weekly newspapers, a lunatic asylum, several grist, oatmeal, saw, shingle and planing mills, an iron foundry, a tannery, a brewery, several hotels and a number of stores. This village was first settled by Indians, who subsequently removed to Rama on the opposite side of the Lake. Orillia is a favourite resort during the summer months. The fishing in the lake is excellent. Steamers run between here and Barrie.

WELLINGTON FOUNDRY,  
GUELPH, \* \* \* \* \* ONT.,

ESTABLISHED 1852.

**INGELIS & HUNTER,**

Manufacturers of

**STEAM ENGINES AND BOILERS,**

Water Wheels,

*Flour & Saw Mill Machinery,*

ALL KINDS OF

**Stave Machinery for Flour Barrels.**

*AND ALL KINDS OF CASTINGS.*

**REPAIRS PROMPTLY ATTENDED TO.**

#### JAMES INNES.

Amongst the manufacturing industries which have grown from small dimensions to large proportions in Montreal, within the last quarter of a century, few have been more rapid in their progress than the manufacture of account books, and the binding, or re-binding, of general literature. This indicates to a great extent the advancement of the city, both commercially and mentally; for, as commerce increases, so are more account books needed, and, as the people become more educated, so more books of all kinds are required, and, therefore, the increase of the art of book-binding may be taken as a fair index of the commercial and mental advancement of a city. Amongst the oldest established binderies in Montreal is that of Mr. James Innes, 660 Craig street, who commenced business in 1859, and whose trade has steadily increased, turning out work which would be no discredit to any bindery in the Dominion. Mr. Innes makes a specialty of account book manufacture, and furnishes some of the leading banks, railway companies and other public companies with their books.

#### THOMAS KENNEDY & CO.

Mr. Thomas Kennedy, the head of this firm, is one of the most experienced boilermakers in Canada, having followed this business for over twenty-five years, during that time turning out some of the best boilers ever made in Canada, many of which are in use in some of our largest manufacturing establishments, noticeably a very fine boiler made especially for the Wanzer Sewing Machine Factory of Hamilton. The factory is situated in the thriving village of Dundas, Ont., occupies about half an acre of ground, and gives constant employment to about thirty men. The present firm was established in 1869, and seems to have been growing in prosperity every year, which is mainly attributable to the fact that they only turn out first-class articles, which are sure to please.

#### GODERICH.

A lake port of Ontario, chief town of the County of Goderich, pleasantly situated on Lake Huron, and at the N. terminus of the Buffalo and Goderich branch of the G.T.R. 160 miles N.W. of Buffalo, 78 miles N.N.W. of London. It has churches for the Episcopalians, Roman Catholics, Presbyterians, and Methodists, 2 branch banks, several assurance and insurance agencies, 2 telegraph offices, several hotels, and a number of stores also manufacturing of woollens, iron castings, machinery, leather, boots and shoes, wooden ware, &c.; saw and grist mills and 8 salt wells. The latter are of great value, and a source of considerable wealth to the town. The fisheries are also valuable; their products are chiefly exported to the United States. Goderich has daily communication by

steamers with Sarnia and Detroit, and ports on the S. shore of Lake Huron. It is a port of entry, and the only shipping point for many miles on the Lake. It has a good harbour, protected by a pier with a lighthouse at the mouth of the Maitland river.

#### THE EVILS OF THE CREDIT SYSTEM.

Considerable progress has been made by the business men of Canada, during the past ten years, in emancipating themselves from the thralldom, vexation and misery of the ruinous long winded credit system. Not a few successful houses are conducted on the cash principle, whilst nearly all the first class establishments have adopted a system of short credits, which is pretty well acted up to; but it is surprising, nevertheless, how many thousands there are, particularly among the retail trade, who still flounder on in the slough of long credits, with all its losses, annoyances, and in too many instances, insolvency. Hundreds are ruined annually from this cause, who might have been getting rich, under the cash system, or that of short credits, and yet the vicious system continues almost unabated in many localities, with all its baleful results.

In the early settlement of the country, long credits were unavoidable. Those were the days when there was little wealth in the country—when no railroads, and but few good roads existed—when there were but few good markets, and not always cash paid for produce; during those early times the settlers saw very little money, and unless they bought on long time, very few of them could buy at all. But this condition of things has long since passed away. Wealth has become abundant; railways have brought markets within a few miles of every farmer's door; cash can be obtained for every article produced, and no excuse exists for continuing the ruinous system of twelve or fifteen month's credit, which still obtains in some localities.

The evils of the credit system are felt by all classes. In many cases it is ruinous both to purchaser and seller, and in all, injurious. No customer can afford to buy goods on long time, for in some cases he has to pay 25, in some 50, and in others even as high as 100, per cent. more for what he requires.

It is impossible for a trader to sell as cheaply on long time as he can for cash or short credit, and hence the old effete way of doing business wherever it exists, inflicts a heavy loss on purchasers by causing them to pay more for articles than they are really worth.

But does the system on the other hand enrich the seller? The best answer to this is to be found in the large number who have been ruined by long credits and bad debts. The fact is, the enhanced prices more than go in bad debts, discounts, protests, lawyer's fees, and injured credit.

How many men are there throughout Canada to-day who

JAMES INNES,  
BOOKBINDER

AND

ACCOUNT BOOK MANUFACTURER,

660 CRAIG STREET.

(First Door East of St. Peter Street,)

MONTREAL.

Magazines, Periodicals, Music, and Old Books, bound neatly and with  
despatch.

THOMAS KENNEDY & CO.,

MANUFACTURERS OF

*Steam Boilers, Oil Tanks,*

**AND GAS WORKS,**

DUNDAS, ONTARIO.

THOMAS KENNEDY.

WM. OGG.

#### ALBERT KENNEDY,

Manufacturer of monuments and tombstones. Established in 1872. The office and factory are situated in the Town of Guelph, Ontario, near the Eramosa bridge. There are ten men employed in this factory and a visit to this establishment would convince any one that a choice selection could be made of every description of monuments and tombstones which are to be seen in the warehouses of this enterprising sculptor.

are "hard up,"—who find it difficult to keep the Sheriff from their doors; but who have their books filled with accounts? Many of the unfortunates who daily take advantage of the bankrupt laws, hand over to the assignees book debts and notes, which, if they were all good, would more than meet their engagements; but in nearly all cases these debts and notes are the dregs left of the wretched credit system, and the assignee soon ascertains that most of them are worthless. The articles which these accounts and notes represent, may have been sold at exorbitant prices? But what matters that if the persons owing are worthless—if they have removed to parts unknown, or the claim has become "outlawed," from having stood so long.

Although the country is generally prosperous, what might be successful businesses, can be found in all parts, which are in danger of shipwreck from the owners foolishly giving too extended credits. Many of these persons do a large trade, they sell at good prices, and outwardly appear to be amassing money; but they are only puddling away in the mud of the old credit system. They have made money, but it is sunk in old doubtful notes-of-hand, and long-winded accounts, which should have been settled long before—the result being a constant drag from month to month to raise enough of cash to meet bank engagements, and not unfrequently ending in a "collapse." In many cases of this kind, money has to be borrowed at high rates of interest, to prevent suspension, whereas, under the system of cash sales or short credits, the same individual would occupy an easy financial position, and make money pleasantly, as well as surely.

#### THE AMERICAN FLAG.

The year 1776 not only listened to the Declaration of Independence, announcing the birth of a nation, but it also witnessed the first unfolding of the flag which has become the symbol of a mighty power, the pride of many million souls, and which will float as long as the principles of that Declaration dwell in the hearts of men. But the flag came before the Declaration. There must be some sturdy fighting done before such bold words are spoken, and men cannot fight without a flag, and so "old glory" was born on the 2nd of January, 1776, just one hundred years ago.

The idea of a "Union flag," as it was called, had long

been familiar to the American colonists. The flags in use throughout the provinces before the Revolution were chiefly those of England, and, though there were many other devices, they were nearly always coupled with some feature of the British colours. The old English flag had been the red cross of St. George on a white field, but in 1606 King James I. combined with it the white cross of St. Andrew on a blue field, because England and Scotland had then become united in one kingdom. In 1707 the colour of this flag was changed to crimson, and the crosses, which had before filled the whole banner, were now confined to the upper corner. This was the famous "meteor flag" of England, which took its present form in 1801, when the cross of St. Patrick was added to the other two. The cross of St. George was the banner which led the English adventurers to their first conquest in America, and doubtlessly waved over the Puritans when, on that bleak December day, they knelt on the "stern and rock-bound coast" at Plymouth. It reminded them of the old country which they still loved, and of the many dear ones whom they had left behind.

But the detestation of "Popery" was so strong and unconquerable among the Puritans that they abhorred everything which reminded them of it, and many were found who disliked the cross in the banner because it had been given to England by a pope. This feeling gradually increased till, in 1684, Mr. Endicott tore out part of the cross from the flag then flying at Salem. This was thought by some to mean treason, but at the trial it appeared that Endicott was moved only by a belief that it was idolatrous to let the cross remain. Two months later the ministers of Ipswich met in Boston, to see if it was right to keep the cross in the banner. They failed to agree, and the subject was referred to the General Court. Meanwhile, the military officers ordered all designs to be laid aside. In December, 1635, it was ordered that all the colours should have the king's arms instead of the crosses, and this new flag was raised over the fort in Boston Harbour. But this unsettled state of affairs had made much trouble in the fort. While the colony was without colours, the castle looked like a deserted fortress, and after the new ensign was adopted, English sailors complained that the people were traitors and rebels—not flying the king's colours. So, being fearful of displeasing the English Government, the colonists allowed the regular standard to float over the castle, but nowhere else in the province. Dutch visitors to Boston as late as 1680 noticed that the flags contained no crosses, while the pine-tree was a favourite device. The red cross of St. George, however, gradually worked its way back into favour until, in 1707, the union flag, created by James I., in 1606, was ordered by Parliament for general use in all the colonies.

These high-handed dealings with the flag tell us how early the American colonists began to show that spirit of independence which finally made them a separate nation. As the exciting times drew near, the growing



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# A. KENNEDY,



MANUFACTURER OF

## MONUMENTS

AND

## TOMBSTONES,

Near the Eramosa Bridge,

**CUELPH, . . . . . ONTARIO.**

Granite Monuments Imported to Order.

*All Orders Promptly attended to.*

## LUKE & BROTHERS.

This firm was established in 1843. The factory and office are situated on King street, in the Village of Oshawa, Ontario. The factory is built of brick, three storeys in height 40 x 60. The engine house and chair shop is two storeys in height 25 x 40. The drying house is two storeys in height 12 x 18. The store house is two storeys in height 26 x 60. The wareroom is a frame building two storeys in height 146 feet deep by 36 feet frontage. This factory is well supplied with all of the most approved machinery for the manufacture of all kinds of furniture. The buildings are heated by steam, using twenty-five horse steam power and employing over forty hands.

spirit was again manifested in the same way. The ten years preceding the outbreak of the Revolution saw an abundant variety of devices and mottoes on the flags, all speaking of the feelings which were moving the popular heart. They formed bands, called Sons of Liberty; and liberty-poles were raised throughout the colonies. Many of the flags showed the old loyalty while demanding their rights, and bore such mottoes as "To his Most Gracious Majesty George III., Mr. Pitt, and Liberty," "George Rex and the Liberties of America." Others, however, were bolder, bearing only "Liberty," or "Liberty and Prosperity," or "Liberty and Union." In January, 1775, the sleds which brought wood to Boston carried small union flags; everywhere a vague desire for liberty filled men's hearts, and spoke from the folds of their banners.

During the first months of the war each State had its own flag. The banner of Connecticut contained the arms of the State and the motto, in golden letters, *Qui transtulit sustinet*—"God, who transported us hither, will support us." The motto of Massachusetts was "An Appeal to Heaven." Her flag was white, bearing the motto and a green pine-tree. South Carolina had an ensign of blue with a white crescent, made by order of Colonel Moultrie. It was the flag which, three years later, called forth the heroism of Sergeant Jasper. During the bombardment of Fort Sullivan by the British fleet, under Sir Peter Parker, the crescent flag was shot away, and fell outside the fort. Sergeant Jasper sprang over the parapet, walked the whole length of the fort in the midst of a terrible storm of shot and shell, recovered the flag, and, in sight of the whole fleet, planted it again on the ramparts. At the battle of Lexington the Americans probably carried no flag, and it is doubtful if they had any at Bunker Hill. Some poetry of that time speaks of the "waving streamers," and it is also said that our troops carried a red flag bearing the words "Come if you dare." But the accounts of the battle, published at the time, do not mention any American flag, and old pictures of the conflict do not show any.

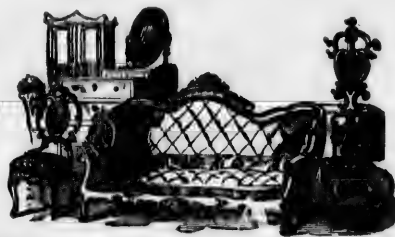
In the fall of 1775 Congress appointed a committee to

create a navy, but nothing seems to have been done about furnishing the new-made navy with a suitable ensign. The captains accordingly followed their own devices, sailing, probably, under their State flags. One favourite device was a rattlesnake lifting its head and shaking its rattles, with the motto, "Don't tread on me!" Some flags added a mailed hand clinching thirteen arrows. The rattlesnake came very near being the national emblem instead of the eagle. It had often before been used on flags, and its appearance at this time on the ensign of the commander-in-chief of our navy caused much discussion of its claims. One writer, thought by some to be Benjamin Franklin, gave weighty reasons for adopting the rattlesnake. It is found only in America; was considered by the ancients as an emblem of wisdom; its eye is exceeding bright and without eyelids, so it signifies vigilance; it never begins an attack, nor surrenders when assailed; its deadly weapons are concealed in its mouth, so that it appears defenseless; and its wounds, though small, are fatal, while it never attacks without first giving warning. In addition to all this, its rattles are distinct from each other, yet so firmly united that they cannot be separated, while they also increase in number. But the fact that the rattlesnake is a serpent, and under the curse of God, probably caused its rejection.

Late in 1775 Benjamin Franklin and two other gentlemen, appointed to create a national flag, met at the camp in Cambridge, and adopted the king's colours (the crosses of St. George and St. Andrew), and reunited with them thirteen stripes, alternate red and white, showing that, although the colonies united for defense against England's tyranny, they still acknowledged her sovereignty. It is impossible to say why Congress so long delayed this important matter of choosing a flag. No record can be found of Congress having taken any part in this affair at Cambridge, nor is it known when the new flag was adopted by law.

It was natural in the colonists to want to retain the king's colours as long as possible, but the origin of the stripes is harder to explain. When Washington left Philadelphia to take command of the army at Cambridge, he was escorted to New York by the Philadelphia Light-Horse. This company carried a magnificent banner, one feature of which was a *canton* of thirteen stripes, blue and silver. This may have suggested to Washington the stripes for the new flag; or he may have taken them from his own coat-of-arms, which is not likely; or, as some think, he may have copied the East India Company's flag, which is still less probable. Still others suppose they were copied from the flag of the Netherlands. However it may be, this "grand union flag" was raised on the camp at Cambridge, on the 2nd of January, 1776. The king's speech on the trouble with the colonies had just been sent to the camp, so the British in Boston thought the new flag was raised as a token of submission. Nothing, however, was further from the truth. The

LUKE BROTHERS,



**FURNITURE MANUFACTURERS,**  
*KING STREET, OSHAWA.*

Have always on hand a splendid assortment of

**Parlor & Drawing Room Furniture,**  
*IN THE LATEST DESIGNS,*

Also a large stock of

**Good Seasoned Walnut and other Lumber**  
Which they will manufacture according to order.

*Their Undertaking Department is also First-Class.*  
*Funeral Outfits can be furnished on short notice.*  
*Two Hearses always ready for hire.*

LUKE BROTHERS,

CABINET FACTORY ON

**ATHOL & ALBERT STREETS,**  
**OSHAWA.**

### B. LEDOUX,

Carriage Manufacturer, was established in 1855. The factory and office 125, and show room 131 and 133 St. Antoine street. The show room is the largest and finest in Montreal. The building is of brick, three storeys in height, fifty-three feet on St. Antoine street by one hundred and twenty-six on Windsor street. The factory and office are three storeys in height, built of brick, forty-seven feet fronting on St. Antoine street by one hundred and ten feet deep. There is also another large three story brick building, thirty-five feet fronting on Windsor street, by one hundred and twenty-five feet deep, connecting with the factory on St. Antoine street. We might go on describing this extensive carriage factory and then not do it justice.

Mr. Bruno Ledoux is the only carriage manufacturer in the Province of Quebec who exhibits at the Centennial exhibition, as he has shipped to Philadelphia a carriage and sleigh, the finest ever manufactured in the Dominion, and as Mr. Ledoux has been awarded all honours at Provincial exhibitions held in the Dominion for the last ten years we have no doubt that he will receive the first prize at the Centennial, 1876. The firm employ from fifty to seventy men.

king's speech was indignantly burned, and thousands of sturdy hearts beat violently to a new patriotism, as the wind lifted the folds of the new banner, which a few hours had made so full of meaning to them. The striped flag also floated over the Virginia Convention which, three weeks before the Declaration, declared the united colonies "free and independent States."

Meanwhile, the cruisers at sea were still carrying their colonial or State flags. John Paul Jones claims that he hoisted "the Flag of America," by his own hand, on board the *Alfred*, this being the first time it was ever displayed by a regular man-o'-war. Probably this "Flag of America" was the new striped flag, though Cooper thinks it was a pinetree flag, with the rattlesnake and motto. Old John Adams afterward disputed the story of Paul Jones, and claimed the honor for a Massachusetts man. It is probable, however, that the glory belongs to Jones. The admiral's flag at this time was of thirteen stripes, with a rattlesnake undulating over them, and the usual motto, "Don't tread on me!" Commodore Barney, of the *Hornet*, hoisted the first continental flag ever seen in Maryland. He was in need of a crew for his vessel, and just at that time the new striped flag arrived from Philadelphia. The commodore, at sunrise the next morning hoisted it to the music of drums and fifes in front of his recruiting-office, and before night his crew were shipped. The first naval victory under the stripes was won by Captain Barney, in the *Lexington*, who on the 17th of April, 1776, captured a British vessel, after a severe fight, off the Virginia shore. In the autumn

of 1776 the armed brig *Reprisal*, carrying Franklin to the French court, first displayed the Continental colours to the curious eyes of the European world; while in July of the same year the brig *Andrea Doria* had been the first to draw a salute from the foreign power for the new flag. The Dutch governor in the harbour of St. Eustatia returned the *Doria's* salute, and was removed from office for his indiscretion. It is said that, after the capture of New York by the British, an American privateer was taken whose flag had only twelve stripes, because a province had been lost.

When the Declaration of Independence was proclaimed from the State-House at Philadelphia, the king's arms were taken down and burned. So the last semblance of allegiance to England was destroyed, and of course the king's colours could not long remain in the American flag. Ensigns of various devices are described as in use during the land-battles of this period, while the "grand union flag" was the official banner.

On the 14th of June, 1777, Congress voted that the American flag should be "thirteen stripes, alternate red and white, that the union be thirteen stars, white in a blue field, representing a new constellation." Here, at last, we have the stars and stripes; but this, as we shall see, was only the official adoption of a flag that had already been in use for nearly a year. The origin of the stars in the banner is as obscure as that of the stripes. Some think they were taken, as was said of the stripes, from Washington's coat-of-arms, which, curious enough, contains both stars and stripes. But, if this were so, Washington would probably have referred to it in some way, which he seems never to have done. Others think it was intended to represent the constellation "Lyra," which contains just thirteen stars, and is the symbol of harmony and unity. This however, cannot be, as Congress expressly says, "representing a new constellation." Doubtless the stars were chosen because they were of all devices the most appropriate to express the truth and character of the new republic. The stars on the banner are five-pointed, while those on coins have six points. This is because the designers of the flag followed the French, the designers of the coins English custom.

It has never been discovered who designed the union of stars. They seem to have arisen as mysteriously out of the twilight as do the stars of evening. It is claimed that Mrs. Ross was the partial designer and the first maker of the stars and stripes. This lady was an upholsterer in Philadelphia, and, in June, 1776, a committee of Congress, with General Washington, called upon her, and engaged her to make a flag, from a rough drawing which they had brought with them. Mrs. Ross suggested some changes in the design, especially that the stars should be five-pointed instead of six-pointed; and General Washington himself drew the new sketch in her back-parlor. Mrs. Ross was appointed flag-maker to the government, and was succeeded by a relative, who held the position until within thirty years.

First Prize at the Exhibitions of 1868 and 1870.

The Diploma awarded at Exhibition of 1870.

**B. LEDOUX,**



**CARRIAGE MAKER,**

Factory & Office 125, and Show Room 131 & 133 St. Antoine St.

**MONTREAL.**

Mr. BRUNO LEDOUX begs to inform the public, his friends and strangers visiting Montreal, that he always keeps on hand a complete assortment of Elegant Family Carriages suitable for Summer and Winter. He has carried all honors at Provincial Exhibitions held in the last ten years.

All kinds of Repairs Neatly Done to Order.

In connection with the colours of the flag, it is interesting to learn that the little robe in which Washington was baptized—now in possession of Mrs. Lewis, of Woodlawn, Virginia—is made of white silk, lined with crimson silk, and trimmed with blue ribbons.

The newly-invented banner did not at once come into universal use, as we find Captain Richards, as late as the middle of October, 1776, asking the Pennsylvania Council what colours should be used by the fleet. The picture of "Washington on the field of Trenton," painted by Peale, who commanded a company in that battle, contains the stars and stripes—which is good ground for believing they were used there.

On the first Independence day—July 4th, 1777—this flag was displayed at the celebration in Philadelphia, and from that time onward seems to have waved in nearly all the battles by sea and land. In February, 1778, John Paul Jones, in the Ranger, convoyed some American vessels into Quiberon Bay, and induced the French admiral to salute our colours—thus being the first to win honour from a foreign power. Jones showed the stars and stripes from the first ship of the line built for the new United States—the America, launched at Portsmouth, New Hampshire, on November 5, 1782. The first military glory to gather around the new ensign was at the British attack on Fort Schuyler, on August 2th, 1777. When the enemy appeared, the garrison had no colours; but the soldiers at once tore up their shirts for the stripes and stars, while the blue ground was made from a cloak taken from the enemy at Peekskill. Under their roughly-made ensign the little garrison won their victory: One day a sally was made from the fort, when five flags were captured from the British, and at once hoisted on the fort's staff, under the home-made victorious colours. Washington's army carried the stars and stripes when, in 1777, he repulsed Cornwallis on the banks of the Assumpink; they waved amid the smoke and roar of Brandy-wine, and the following battles of the war; looked down upon Burgoyne's surrender at Saratoga, and that of Cornwallis at Yorktown; and floated throughout that terrible winter at Valley Forge, speaking of hope and courage to the suffering soldiers.

In January, 1781, a daring and brilliant action by Captain Rathburne, of the warloop Providence, placed the flag for the first time on a foreign fortress. This aloop, with a crew of only fifty men, captured Fort Nassau, in the island of New Providence; spiked the guns, seized the vessels in the harbor, and put to sea again—all in two days. The 26th of November, 1783, is a famous date in the story of the flag. On that day the British evacuated New York, and the very flag raised by the army over the newly-won city was preserved in the American Museum at New York until the building was destroyed by fire.

After the long war had closed, and American independence was secured, the stars and stripes were soon found waving in every breeze under various names and floating on

all the waters of the globe. They were flying in the Thames, in the very faces of the astonished English, even before the treaty of peace had been signed. The honor of thus early displaying the national flag at the gates of English royalty is claimed for five different vessels, and it is perhaps impossible to settle the dispute. It is enough for us that the flag was there.

Even before these vessels arrived, the American colours were shown in London city, and in so remarkable a manner that the story is well worth remembering. It is related in "The Life of Elkanah Watson," a distinguished American, that being in London near the close of the war, he devoted one hundred guineas, won in a wager, to getting a portrait of himself painted by Copley. The painting was all done except the background, which was to be filled in—as soon as peace should be declared—with a ship bearing to America the joyful news, the rising sun pouring light upon the stars and stripes flying from her gaff. Everything at last was finished but the flag, which the artist was unwilling to paint, as the royal family often came to his studio. On the 5th of December, 1782, the king made his speech recognizing the United States as a nation; Copley immediately, and before dining, went to his studio, and with rapid touches spread the glorious colors upon the canvas. As soon as the king's words were spoken, the American ensign was thus receiving homage under the very eaves of his palace.

When the stars and stripes first sailed into the Chinese port of Canton, the inhabitants were greatly excited. They said a ship had come from the farthest part of the world, with a flag as beautiful as a flower—a compliment to the flag in which all Americans can join. The Celestials called the vessel *Kaw-kee-cheun*—the flower-flag-ship. This name at once became popular, and America is now called *Kaw-kee-koth*—the flower-flag-country. We are told that, in Chinese, *Yankee* (*Yongkee*) means flag of the ocean; and Washington (*wo-shin-tung*) signifies rescue and glory at last. This is very singular and pleasing. The ship Franklin, of Salem, whose log-book is preserved in the Essex Institute at that city, was the first to show the national flag in Japanese waters, July, 1799. In 1789-90 the ship Columbia carried the flag around the world, and gave her name to that majestic river on the Pacific coast, discovered by her master, Captain Gray, in 1792. During the years 1792-94, Vermont and Kentucky joined the Union; and in 1794 Congress changed the flag to fifteen stars and fifteen stripes, to take effect the following May. This act was passed after long discussion, many members thinking the flag should always remain as it was. This altered ensign was the one borne by the noble "Old Ironsides," and by all our vessels during the second war with England.

During the sitting of the French Convention at Paris, on the 14th of August, 1794, the minister plenipotentiary from the United States was led into the hall and received the fraternal kiss and embrace, amid great enthusiasm;



A. LEARMONTH & CO.,  
**ENGINEERS & FOUNDERS,**

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*Manufacturers of*

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**IRON RAILINGS,**

HOISTING MACHINES FOR STORES

*Jack Screws, Bark Mills and all kinds of Machinery for Mines,*

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ALL KINDS OF

**Castings of Brass or Iron made to order.**

**All kinds of Blacksmith Work.**

**REPAIRS DONE AT SHORT NOTICE.**

## CANADIAN INDUSTRY.

The Bonded Montreal Vinegar Works of M. Michael Lefebvre, No. 41 Bonsecours street, were established in 1851.

This is the only vinegar factory in Montreal, and the only one that received the first prize at the exhibition in Montreal in 1866. The office, storeroom and sample room are situated at No. 41 Bonsecours street. The bonded warehouse is in the basement. This building is of stone, one hundred feet front by thirty-six feet deep, and is three storeys in height. The factory is situated in the rear, and is fifty feet square, two storeys in height. This is the only vinegar factory of any note in the Province of Quebec.

and on the 26th of September the new American banner was presented to the Assembly by Captain Barney, in behalf of the United States. This standard was hung in the legislative hall, and afterward borne in the procession at the great funeral of Rousseau, when high honours were shown to the Americans in Paris. The fifteen stars and the fifteen stripes won the victories on the lakes, at New Orleans, at Tripoli, and floated from the Essex during her famous fight in the harbor of Valparaiso. In 1797 the ensign was displayed amid the burning city of Smyrna in the Orient; and in 1800 the American frigate George Washington waked Constantinople with a thundering salute, to view the emblem of the new nation. When the Turks were told that the frigate came from the country discovered by Columbus, they sent aboard a bunch of flowers and a lamp—the one meaning welcome, and the other friendship.

In 1814 Congress voted to make a collection of the flags which had been captured by the armies and fleets, and they are now preserved in the Flag-room at Washington, and in the Gunnery-room at Annapolis; but the collection is very incomplete, as for many years no care had been taken to gather and preserve these trophies, and the hiding-place of many of them is not even known.

It is not necessary for us to enumerate all the victories the flag has won and the vicissitudes it has undergone during the long period of history, for they are known to every reader. It is never idle. New stars are continually added to its cluster, and fresh achievements shed lustre upon its folds. It is now marching on to glorious conquests of peace. Alaska is under its dominion; it waves over new possessions in the Pacific, two-thirds of the way to Japan; while its latest acquisitions at home make its deep blue glow with the light of thirty-seven stars.

## LAKE SUPERIOR.

The most westerly and most elevated of the North

American chain of lakes, and the largest expanse of fresh water on the globe. It extends from lat. 40° 35' to 49° N., and from lon. 84° 30' to 92° 20' W. It has Minnesota on the W. and N. W., Wisconsin and the N. peninsula of Michigan on the S., and Ontario in all other directions. Greatest length, measured on a curve through its centre, from E. to W. 420 miles; greatest breadth 160 miles; circuit about 1,750 miles. Estimated area 32,000 square miles. Height above sea level 630 feet; depth varying from 80 to 200 fathoms. It is of very irregular shape, widening towards its centre, and gradually narrowing, partly towards its E., but much more so towards its W. extremity, thus forming an irregular crescent, with its convexity on the N. and its concavity on the S. The N. shore is generally bold and elevated, and extends about 12 miles, presenting almost continuous ranges of cliffs, which vary in height from 300 to 1,600 feet; the S. shore is low and sandy, though occasionally interrupted by limestone ridges, the most remarkable of which, situated towards the E. extremity, presents a perpendicular wall 300 feet high, broken by numerous caverns and projections, and forming, under the name of the Pictured Rocks, one of the greatest natural curiosities in America. The central portion of the Lake is clear of islands, which, however, are numerous both towards the S. and the N. side. In the former direction they are generally small; but in the latter, several, more especially the Isle Royal, are of considerable dimensions, and along with the indentation of the coast, afford good shelter for vessels. The water of the lake is remarkable for its transparency, and derives its supplies from a basin estimated at 100,000 square miles, which is drained by more than 200 streams. About 30 of these are of considerable size, but they are almost all impetuous torrents, interrupted by rocks and rapids. The outlet is at the S.E., by the St. Mary's Strait, which communicates with Lake Huron and the other great lakes whose waters reach the ocean, through the St. Lawrence. St. Mary's Strait (Sault Ste. Marie) descends 22 feet in a distance of three fourths of a mile, forming a series of rapids, around which a navigable canal has been constructed forming the last link of the chain of communication between the great lakes, and adding above 1,700 miles to our coast trade. Within the lake itself the only obstructions to its navigation are the violent gales to which it is subject. It is well supplied with fish, principally trout, whitefish and sturgeon. The two former are of excellent quality and have led to the establishment of a number of fishing stations. The principal export by the lake is copper, of which veins of great richness and extent have been discovered both on its shores and islands. The silver mines of Lake Superior are very rich. Successful and most profitable explorations are being prosecuted on a number of islands and on the mainland by several companies. The most valuable deposits yet found have been on Silver Islet, where the yield is prolific. The boundary line between Canada and the United States, in Lake Superior

## CANADIAN INDUSTRY.

# Bonded Montreal Vinegar Works.

**MICHEL LEFEBVRE,**

**No. 41 BONSECOURS STREET.**

Vinegar, although an article of food of daily use, and one of the most important is still manufactured by irrational processes, as a matter of routine, without any knowledge of the science which is requisite for the production of an article of superior quality, hence why we so often meet in the ordinary course of trade so few Vinegars possessing all the qualities of an article of undoubted superiority.

Fully acknowledging the imperfection of the old methods, guided by important scientific discoveries, principally of chemistry, as well as by a long practical experience, having at my disposal a large manufacture constructed on the most approved principles and combining the latest improvements which the progress of the times has put to the disposal of technical arts, I have attained in the manufacture of Vinegar a degree of perfection which challenges the most approved methods practised either in America or Europe.

Possessing the utmost purity so essential in the preparation of pickles, my Vinegar is distinguished for its excellent taste, being really acid without admixture of any exotic matter which so often gives a strange taste to Vinegars manufactured under certain processes in imitation of wine vinegar and which do not contain the degree of purity which I claim for mine and which is of such importance to the health of consumers who are often the victims of the system of adulteration, which of late has been predominant in the vinegars offered in our markets.

The qualities I claim for my vinegar have been endorsed by the most eminent chemists of Canada, and I have great pleasure in submitting to the public the following

### CERTIFICATES.

We, the undersigned, Physicians practising at Montreal, have assisted in the Chemical Analysis of Mr. Michel Lefebvre's Vinegar. From the different experiments which have been made, we are fully convinced that this Vinegar is far from adulteration and that it is superior in quality to any foreign importation, and we specially recommend it for family use, as being free from any harmful preparation.

In testimony whereof, we have signed,

T. G. LUSSIER, M.D.  
E. H. TRUDEL, M.D.  
Chs. Faa. PAINCRAUD, M.D.  
J. L. LEPROHON, M.D.  
A. RICARD, M.D.  
J. A. CREVIER, M.D.  
Jos. GAGNON, M.D.  
WOLFRED NELSON, C.M., M.D.

P. E. PICAULT, M.D.  
J. G. BIBAUD, M.D.  
H. PELTIER, M.D., Edin.  
E. ROBILARD, M.D.  
R. GARIEPY, M.D.L.  
M. ETHIER, M.D.  
A. A. MEUNIER, M.D.  
A. H. DAVID, M.D., D.C.L.

LABORATORY, 28 BEAVER HALL TERRACE.

MR. MICHEL LEFEBVRE:

Sir,—I have examined the Sample of Vinegar which you sent me as your manufactured article, and have much pleasure in informing you that it is a pure, well fermented Vinegar and that it is free from any adventitious acid its acid strength is due alone to the acetic or Vinegar it contains.

I append below a report of its strength:

Strength of Vinegar sent to me by Mr. Lefebvre,	
Acetic Acid	12, 22 per cent
Vinegar Acid	12, 22 per cent

G. P. GIRDWOOD, M. D.

REPORT FROM DR. J. BAKER EDWARDS, Ph. D. D.C.L., F.C.S.

PROFESSOR OF CHEMISTRY AND MICROSCOPY,

Montreal, March, 1875.

I hereby certify that I have made a chemical analysis of a sample of Vinegar, manufactured at the Montreal Vinegar Works, given to me by Mr. Michel Lefebvre, and I find that the Vinegar is of full strength and good flavour, and free from Sulphuric Acid or other admixture, or adulteration. I can therefore recommend it as a wholesome and well manufactured Vinegar.

[Signed,]

J. BAKER EDWARDS, Ph. D., F.C.S., Professor of Chemistry.  
Bishop's College Medical Faculty, Montreal.

#### JAMES LINTON & CO.

This is one of the oldest wholesale Boot and Shoe manufacturing houses in the city, having been established in 1859. Their factory and offices occupy the large five story building, formerly well known as the St. James Hotel, in Victoria Square, now transformed into one of the most complete boot and shoe establishments in the Dominion. A large portion of the ground floor is used as a receiving and shipping room, and is occupied with rolls and bales and piles of the raw material, and with cases and trunks of manufactured goods, branded ready for shipment to all parts of British North America, from Newfoundland to the prairie province of Manitoba. Here also is the great engine,—silent, patient, and tireless,—reaching out its arms over the whole of the large building, and supplying power through belt and pulley, to a hundred different machines. The steam elevator in a twinkling conveys us up to the second story, which is monopolized by the business offices, sample-room, and packing-room. The next story is required for a stock-room; and then on the fourth flat we reach a much busier scene. A portion of this floor is thronged by men and boys, who are actively engaged in cutting up the various materials required; but the larger portion is occupied by a multitude of sewing machine operators, who manufacture the boot-uppers ready for the bottomers, upon the fifth flat, where our journey terminates. The various departments of sole-leather cutting, bottoming, and finishing are to be found upon this top story, which, on account of the great number and variety of machines used, is the most interesting of all. Wonderful ingenuity has been developed in the production of the machinery necessary to meet the requirements of these departments. The sole-sewing and pegging machines; heel-attaching and heel-pressing machines; heel-shaving and fore-part trimmers and burnishers; sole-leather rollers, splitters, and dyeing machines, etc., etc., of the latest construction,—would occupy hours in examination, and much space in describing. About 300 hands are employed by this firm, and the factory, which can turn out from a thousand to fifteen hundred pairs a day, is well worthy of a visit.

#### WOLFE ISLAND.

A large Island at the entrance to the River St. Lawrence, at the N.E., extremity of Lake Ontario. It divides the St. Lawrence into two branches, both of which are navigable for the largest vessels. The south one, however, is the main channel and boundary line of the United States. Wolfe Island is the Queen of the far-

famed Thousand Islands. Its W. portion is opposite Kingston. Its coast is rather irregular, indented with beautiful and picturesque bays. The shores are sufficiently high to prevent the surf from washing up on the land, and is composed of fine gravel or limestone rock, which gives the whole coast a cleanly and attractive appearance. Its greatest width is 7 miles and length about 18 miles, and has 30,600 acres of as good land as is to be found in the province. There are many evidences of this island having been inhabited by Indians, as human bones and various relics peculiar to Indian life have been discovered in many places. Forty years ago Wolfe Island was almost a dense and unbroken forest, inhabited by wolves and other wild beasts. But since that period the wild forest has given place to the most beautiful cultivated fields and orchards. There is a thriving village, 16 schools, and 5 churches. The water around the island is as clear as crystal, and teeming with all kinds of delicious fish, such as salmon, trout, whitefish bass, pike, pickerel and Maskinonge.

#### WOLFE ISLAND.

A thriving post village on the above island, in Frontenac Co., Ont., 3 miles from Kingston, with which city it has regular communication by ferry steamer. It contains a telegraph office, a grist mill, 5 or 6 stores, and a lighthouse. Shipbuilding is largely engaged in.

#### GEORGETOWN.

An incorporated village in Halton Co., Ont., on the River Credit, and on the G.T.R., 29 miles N.W. of Toronto. It has valuable water power privileges, and contains a telegraph office, paper mills, brewery, tannery, iron foundry, grist mill, marbleworks, a printing office, issuing a weekly newspaper, 3 hotels, and about 20 stores, and has a large trade in lumber, grain and country produce.

#### ROCKY MOUNTAINS.

Called also the CHIPPEWAYAN MOUNTAINS, a chain in the Central and W. part of North America; commencing in New Mexico, in about 32° 30' N. lat., near Fort Webster, it extends nearly N.N.W. throughout the N. portion of the continent and the Polar Ocean, terminating W. of the mouth of the Mackenzie river in lat 69° N., lon., 135° W. This range, in connection with the Andes, of which it may be said to be a continuation, forms the longest, and according to Humboldt, the most uniform chain of mountains on the globe. Somewhat more than half of the entire chain belongs to North America, the name, Rocky Mountains, being usually applied to that portion only which is comprised within the United States and Dominion of Canada, although the exact limit of this mountain range towards the S., can scarcely be said to be determined. The entire length, however, of the chain, following the windings, may be stated in round

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# JAMES LINTON & CO.,

Manufacturers of, and Wholesale Dealers in

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### MONTREAL CARD AND PAPER COMPANY.

The manufacture of card-board and glazed paper is a new industry for Canada, the first endeavour to introduce it being made in 1869, and the great success which has attended the effort shows that Canadians are always ready and willing to patronize home manufacturers when they can obtain good articles at rates which will compare favourably with imported goods. The Montreal Card and Paper Company is the only factory of its kind in the Dominion, and its goods are widely distributed throughout all the Provinces. The factory is situated at 515 LaGauchetière street, Montreal, and is a handsome four story brick building with a frontage of twenty-five feet, and a depth of one hundred and fifty feet. About thirty hands find employment here and the machinery is all of the newest and most approved pattern. The goods turned out are of excellent quality and compare well with either English or American manufactures. Mr. A. J. Auchterlonie is the Managing Director. Printers and dealers will find in this establishment a complete assortment of their class of goods always on hand.

numbers at 3,000 miles. The E. boundary of the Rocky Mountains in lat. 35° N., is in 107° 20' W. lon.; in lat 40° N., 108° 30' W. lon.; in lat. 63° N., 124° 40' W. lon.; in lat. 68° N., 130° 30' W. lon. Notwithstanding this general tending to the W., the continent widens so much more in the same direction that this chain, which in South and Central America, and Mexico, is comparatively a coast range, is several hundred leagues inland in the United States and Canada. The highest known peaks within the United States are Fremont's, 13,570 feet, and Pike's Peak, 11,497 feet high; and Mount Brown and Mount Hooker, in Canada, near 53° N. lat., the former about 16,000 and the latter 15,690 feet above the sea level. We are very imperfectly acquainted with this system of mountains; the general altitude of the range, however, is supposed to vary from 10,000 to 14,000 feet; it is said that peaks have been measured of 18,000 feet in elevation. Probably no mountains of the same altitude can be so readily traversed as the Rocky Mountain chain, owing to the great breadth of its base and its gentle acclivity. Among the most remarkable of the numerous passes may be mentioned that leading from the head waters of the Athabasca to those of the Columbia between Mount Brown and Mount Hooker, and called the Athabasca Portage; it has a height of 6,300 feet and has only been used by the traders of the Hudson's Bay Company as the principal pass into the basin of Columbia. The following are the measurement of 8 other passes in the Dominion of Canada.

1. Red Stone Creek or Boundary Pass, from Waterton River to the Kootanie. 6,030 feet above the sea.
2. British Kootanie Pass, by Ramsay River to the Kootanie.
3. Crow's Nest Pass, by Crow River to the Kootanie. 5,960.

4. Kananaski Pass, from Fort Bow by Ramsay River to the Kootanie (with a short tunnel 4,600 feet). 5,985 feet.
5. Vermillion Pass, from the South Saskatchewan by Fort Bow (4,100 feet) to the Kootanie. 4,947 feet.
6. Kicking Horse Pass, by Bow River and Kicking Horse River to the Upper Columbia. 5,420.
7. Howse Pass, from Deer River by Blueberry River to the Upper Columbia. 6,347 feet.
8. Tête Jaune or Yellowhead Pass, from the Athabasca to the Upper Fraser. 3,760 feet.

The principal pass on United States territory is the South Pass, in about lat. 42° 30' N., and lon. 109° 30' W. Its elevation is about 7,500 feet above the sea. The Union Pacific Railroad crosses the Rocky Mountains near the sources of the Missouri and Columbia at an elevation of about 6,000 feet above the sea. Amid the valleys and gorges of this stupendous system of mountains some of the largest rivers, of the globe have their birth. Of these the Athabasca Peace, and Mackenzie find their outlet in the Polar Sea; Saskatchewan in the Atlantic, through Hudson's Bay; the Missouri and its tributaries find an exit in the Mississippi; while the Rio del Norte, the Colorado and the Columbia take opposite directions the first through the valley of New Mexico to the Gulf of Mexico; the second through the deserts of Utah to the Gulf of California; while the last from the N. bursting through the Cascade and coast ranges, rushes to join the mighty Pacific, bearing the only water that reaches that Ocean directly from this range. Of the geological structure of the Rocky Mountains little is as yet known. Volcanic rocks are known to exist in many places on the slopes or sides. According to the most recent reports there is, between the heads of Madison River and the upper waters of the Yellow stone a volcanic region of perhaps 100 square miles in extent. Hot springs are found not only in this region, but in various other places on the E. and W. declivities of the Rocky Mountain range. Near 42° 37' N. lat., and 111° 45' W. lon., there are a number of fountains the waters of which effervesce with the carbonic acid that they contain. From this circumstance they have received the name of "Beer or Soda Springs." The most remarkable of these throws up a *jet d'eau* of about 3 feet high, accompanied with a subterraneous noise, which, together with the rushing of the water resembles the sound of a steamboat in motion whence it has been termed the "Steamboat Spring." Inexhaustible coal fields skirt the Rocky Mountains through 12 degrees of latitude, chiefly in British territory. The route of the Canadian Pacific railway will be through this coal district, and will cross the Rocky Mountains by the Yellowhead Pass.

### HALIFAX CITY AND COUNTY.

The City of Halifax, the capital of the Province of Nova Scotia, was founded in the year 1749 by the Lords



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MONTREAL

# CARD AND PAPER CO.,

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of trade, and was named in compliment to George Mountague Earl of Halifax, then at the head of the Board. The scheme for the establishment of the town is said to have originated with the people of Massachusetts, who, in calling the attention of Government to the claims and encroachments of the French on the territory of Acadia, suggested the necessity as well as the great commercial advantage to be derived from such an undertaking. A plan was accordingly submitted to the Government in the autumn of 1748, and being warmly supported by Lord Halifax, advertisements soon appeared under the sanction of his Majesty's authority, holding out excellent inducements for emigration. The prospects appeared so inviting, that in a short time 1,176 settlers, with their families, were found to volunteer, and the sum of £40,000 being appropriated by Parliament for the purpose, the expedition was placed under the command of Colonel the Honourable Edward Cornwallis, M. P., as Captain General and Governor of Nova Scotia, and set sail for Chebucto Bay early in May, 1749.

The fleet consisted of thirteen transports, carrying 2,376 passengers, men, women, and children, and a sloop of war, the *Sphinx*, with the Governor and His suite on board. The total number of males was 1,645, of which about 500 were man-of-war sailors.

On or about the 21st of June, the *Sphinx* arrived in the harbor of Chebucto, and the Governor and suite soon after landed on George's Island.

On the 14th July, the civil Government was organized on board the *Beaufort* transport, and the following gentlemen sworn in councillors, viz: Colonel Paul Mascarene, Captain Edward Howe, Captain John Gordan, Benjamin Greene, John Salisbury, and Hugh Davidson. The table around which the first Council sat is still preserved in the Council Chamber. The formation of the Council was announced by a general salute by the ships in harbour, and the day was devoted to amusement and festivity.

In the month of July, Mr. Bruce, a civil engineer, and Mr. Morris, a surveyor, were ordered to lay out the town, which was surveyed and the plan completed by the 14th September. The town was laid out in squares or blocks of 320 by 120 feet—the streets being from 55 to 60 feet wide. The width of Granville Street is but 55 feet. Each block contained sixteen town lots, 40 feet front and 60 feet deep, excepting the lots between Barrington and Argyle streets which are 72 feet deep—giving a larger space for St. Paul's Church and the Parade. The whole was divided into five divisions. Buckingham street was the first fixed as the north, and Salter street as the south limit, but the north line was subsequently extended to Jacob street. The settlers drew for the lots, and the names and numbers were entered on a register kept for that purpose, still in existence, and known as the allotment book. The north and south suburbs were surveyed about the same time, and the German lots in the north laid off in the following year.

On clearing the ground for settlement, a number of

dead bodies were discovered among the trees, partly concealed beneath the underwood, which were supposed to have been the remains of soldiers of the Duke D'Anville's expedition, which wintered in Chebucto in 1746.

In 1872 the workmen excavating in the vicinity of the new Presbyterian Church, Dartmouth, exhumed large quantities of human bones. It will be remembered by those familiar with the early history of the Province that about the year 1746 a fever broke out in a French fleet then lying in the harbour, which swept away hundreds of seamen. The commanding officer, who also fell a victim, was interred on George's Island. Large numbers of the seamen were buried on the Dartmouth side, and it is probable that it is the remains of these unfortunate men which were then brought to light, after a repose of a century and a quarter. Many of the bones were in a good state of preservation.

On the 17th July, the French deputies waited on the Governor on board the *Beaufort* transport. They were again received by the Governor and Council on the 29th July, when they rendered their allegiance to the new Government, which was accepted. The Indians also had an audience on the 14th August, and treaties of peace between them and the colonies were drawn up and signed on the following day. These treaties do not appear to have been much respected, however, as the Indians continued to give the settlers considerable trouble; and several new companies of volunteers were raised in the following October to prevent their incursions. About this time nearly one thousand persons are said to have fallen victims to a fearful epidemic which swept over the country. Laws, similar to those in force in the colony of Virginia, being found the most applicable to the circumstance of the new town, were adopted.

From the year 1749, the defence of the town consisted of palisades or pickets placed upright, with block-houses, built of logs at convenient distances. This fence extended from where St. Mary's Cathedral now stands to the beach, south of Fairbank's wharf, and on the north along the line of Jacob street to the harbour.

There were also block-houses at Point Pleasant, Fort Massey, and various other points near the town.

The town of Dartmouth was commenced in August, 1750, by 350 settlers, who arrived in the ship *Aldaby*. In the December following the first ferry was established, and John Connor appointed ferryman by order in Council.

Dartmouth and the vicinity of Halifax suffered considerably at this time from the depredations of the French and Indians, stimulated by French emissaries; and to prevent their incursions a militia force was formed consisting of all the male inhabitants between the ages of sixteen and sixty.

Between the years 1751 and 1762, 1958 German settlers arrived in the colony. In June 1763, 1500 of them embarked for Malagaish harbour and Mahone Bay, where they afterwards built the town of Lunenburg. The remain-

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THE

Montreal Malleable Iron Works,

42 and 44 St. George Street,

MANUFACTURERS OF ALL KINDS OF

*Malleable Iron Castings,*

USED BY

MACHINISTS, MOWING & REAPING MANUFACTURERS,

RAKES, CARRIAGES, &c., &c.

We are now in a position to manufacture the above Goods of

**SUPERIOR REFINED**

**MALLEABLE IRON.**

Both by Cupulo and Air Furnace.

The work hitherto done has given entire satisfaction, and the proprie-  
tors would respectfully solicit the patronage of the Manufacturers of the  
Dominion.

**Send for Circular.**

### L. MITCHELL,

Manufacturer of church organs, was established in 1860. The factory is situated at 100 to 104 St Antoine street, Montreal, covering about one hundred square feet, employing from fifteen to twenty men. The organs made here are first-class, and are in some of our most prominent churches, both in Canada and the United States. Mr. Mitchell has recently shipped one of the largest organs to Chicago that was ever built on the Continent of America.

der continued in Halifax, and were located in the North suburbs, called Dutchtown, Brunswick and Lockman streets, now known as the North End, and were the first settlers of that part of the peninsula.

Notwithstanding the advantages held out by the Government and the fact that up to the year 1767 the enormous sum of £660,000 sterling had been expended on the settlement, the people at that date were rapidly removing to the old colonies. The fisheries, one of the main inducements for emigration, being almost entirely neglected, and the population reduced to much less than half its original numbers, subsisted chiefly on the money expended by the army and navy, and were dependant on Boston for their provisions, and all other necessary supplies. Halifax was of incalculable importance, however, to Great Britain in a military point of view, and to its position as a military and naval station may be ascribed, in a great measure, the downfall of the French power in America.

The fleets and troops under Lord Howe and London sent out for an attack on Louisburg, in 1757, made Halifax their rendezvous. After the siege, which lasted two months, the fleet and army returned to Halifax and remained some time to refit. The country was sacked for provisions, and many of the sailors, being enriched by the campaign in Louisburg, procured their discharge and became settlers, and all the ammunition and stores, with a quantity of private property, being removed to Halifax, the town once more began to assume a prosperous appearance.

Halifax was again the resort of the army and navy, under Wolfe, during the following year, 1759; and in 1763 the town was enlivened by the presence of a large army and navy, and many gentlemen of standing made the place their home.

In December, 1760, King George the III was proclaimed at Halifax with great ceremony.

Representative Government was established in Nova Scotia in 1758.

A great gale of wind in 1769, caused much destruction of property and loss of life. The winter was remarkably severe, the harbour being choked with ice for several days in the month of February, and the snow on the ground in March following was in many places five feet deep.

From 1770 to 1776 was a period of great public excitement:

emissaries from the revolted colonies were numerous, and all meetings of a political nature were forbidden.

The Parliament elected in 1770 sat for fourteen years, without being dissolved.

After the close of the French war, the town declined in prosperity for a few years; but eventually it again became the depot of the troops and shipping, and a more prosperous era began to dawn. After the evacuation of Boston, ten thousand soldiers, sailors and loyalists, who arrived with the fleet were quartered in the town. Many of the transports, being in a leaky condition, landed their people. Every house was crowded to excess. From the commencement of hostilities to the termination of the war, the town was thronged with troops and refugees from the revolted provinces, and the scarcity of provisions increased to an alarm extent. Beef was 2s 6d. and butter 6s. per lb.

The loyalists soon distributed themselves throughout the Province, and the population again rapidly decreased. In 1783, however, great numbers of loyalists came from New York, and the population thus augmented, was suddenly increased to double its former numbers; yet it is very remarkable that in September, 1791, within eight years after, the population had again so fallen off as scarcely to exceed five thousand. The greater portion of the loyalists returned to the States, where they became founders of some of the great families.

In the year 1787 Nova Scotia was erected into a Bishop's See, and Halifax made the residence of the Bishop.

On December 27, 1796, a tremendous hurricane visited the town, and swept away all the wharves, and damaged most of the shipping in the harbour. The loss of property was estimated at £100,000.

The lumber yard, ordnance yard, and King's wharf, were all commenced about the year 1784, or 1786; but the buildings now existing at these localities were not put up till a much later date.

Citadel Hill was cut down, and ramparts of earth constructed on the site by Prince Edward, Duke of Kent, when commander-in-chief of the garrison, a number of wooden fortifications by which the hill had been occupied having been removed for the purpose.

The Towers on George's Island, Point Pleasant, Eastern Battery, Meagher's Beach, and York Redoubt were built about this time. He also established telegraph signals between Halifax and Annapolis—the first post being on the hill behind his own residence on Bedford Basin. The Parade Ground was levelled and the wall built by him. Until the year 1780 the streets of the town were in a very rough condition, and, from stumps of trees and rocks, impassable for carriages.

The first Government House was erected soon after the laying out of the town. The frame and material were brought from Boston. The building was completed early in October. It was a small low building of one

LOUIS MITCHELL,

Manufacturer of Superior

# Church Organs,

Of all dimentions, Builder of the

## LARGEST CHURCH ORGAN

in America ; built for the Jesuit's Church, Chicago in 1870.

All Orders Promptly attended to.

100, 102, 104 ST. -ANTOINE STREET,

MONTREAL.

### MONTREAL BRASS WORKS.

The establishment of Messrs. R. Mitchell & Co., corner of Craig and St. Peter streets, Montreal, and known as the Montreal Brass works, is the largest factory of its kind in the Dominion. It is a handsome brick building, three storeys high, has a frontage of 111 feet on Craig street, a depth of 72 feet on St. Peter street, and a back extension of 52 feet on Fortification Lane. There is about 30,000 square feet of flooring in the establishment, and over one hundred different machines which are run by a twenty-five-horse power engine. The showroom is on the second floor and is a very large and handsome apartment, where the largest and finest assortment of brass work, gas fixtures, chandeliers, &c., to be found in Canada are always on exhibition. About 200 men are constantly employed, and Messrs. Mitchell have gained for themselves the reputation of being very just and honorable employers, kind and considerate towards their men. The works were established in 1851, and have steadily grown in importance until they now form one of the leading industries of the city.

story, and stood in the centre of the square now occupied by the Province Building. It was surrounded by hogheads of gravel and sand, on which small pieces of ordnance were mounted for its defence. This building was removed and a more spacious and convenient residence put up about 1757 or '58, which in turn was pulled down shortly after the year 1798.

Saint Paul's Church, now probably the oldest building in the city, was built in 1750, at the expense of the Government. The old German Church in Brunswick street, bears the date of 1761. It was erected by private subscription, as a Lutheran Church, and is now one of the few relics of the old German settlement.

A printing office seems to have been established as early as March, 1756, by Isaac Curry. The first newspaper in Halifax appeared in January, 1769. It was published by Anthony Henry, edited by Captain Buckley, and called the *Nova Scotia Chronicle or Weekly Gazette*. There was another printing office in 1776, in Grafton street, with a steeple and a hand holding a pen for a vane.

The first Court-house stood where Northup's Country Market now stands, at the corner of Buckingham and Argyle streets. The building recently occupied by the Halifax Grammar School, at the corner of Sackville and Barrington streets, is also a very old one. The Legislature held its session there about 1765. It has also been used as a Court-house and as a Guard-house.

There were numerous and well kept houses of public entertainment at a very early period. A large three story building, called the Great Pontiac, was erected previous to 1757, at the corner of Duke and Water streets. It has been since known as Michael Bennett's corner. There was also the Crown Coffeehouse, kept

by William Fury, in 1769, on the beach near the Dockyard, and the Jerusalem Coffeehouse, destroyed by fire in 1837. The latter building stood on the site now occupied by the warehouse of that name.

Between 1753 and 1780 public gardens and promenades were much in vogue, of which Adam's Garden south of the citadel, near the present Artillery Park, was the principal. The Artillery Park was then kept on the Grand Parade. The Parade was not levelled at that time, and the descent at the north-east corner was very abrupt. The Artillery Barracks stood in a line with the engine-house recently removed from the upper side of the Grand Parade; Spring Gardens was another place of resort. The old Governor's Gardens were south of Government House, now the residence of the Rev. George M. Grant. About the year 1768 there were lamp posts at all the principal corners, the town being then lit with oil, at the public expense.

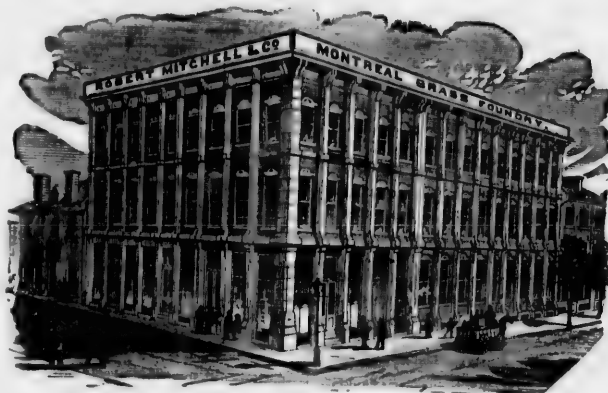
The first jail was situated in Hollis street, at the foot of Salter street.

The Queen's Dockyard was first established in 1758. It was extended and improved in 1769. The present wall was built in 1770; this date is inscribed on the gate. It is situated in the north end of the city and now contains workshops, warehouses, and stores of various descriptions, besides commodious residences for the officers and workmen. It contains several war trophies. It was at this place His Royal Highness the Prince of Wales first landed in Nova Scotia in the year 1860.

After the return of His Royal Highness the Duke of Kent, and between that period and 1840, the town of Halifax did not make such rapid progress as many other towns on this continent. During the American war of 1812, several valuable prizes were taken into port, which caused a considerable sum of money to circulate; but comparatively few buildings of any note were erected. The foundation-stone of Mason Hall was laid by the Duke of Kent about 1800. The Provincial Building was erected between 1812 and 1820, and Dalhousie College about 1820. St. Paul's Church was enlarged about 1812. A crusty old Admiral removed, about this time, the principal Dockyard to Bermuda. The emancipation of the slaves in the West India colonies, in 1831, caused a serious interruption to the important trade carried on between Halifax and those islands. This was followed by Asiatic cholera in 1835, this again by commercial regulations respecting the admission of Baltic timber into the British markets about 1837; and that was followed by the withdrawal of the troops during the trouble in Canada—all combined to cause a stagnation in trade, and to give a desolate appearance to the city. But within the last quarter of a century Halifax has made rapid progress, both in population and material wealth. A class of what was then considered commodious steamers was placed upon the ferry between Halifax and Dartmouth. About the year 1839 or 1840 the Cunard line of steamers was established, the Liverpool



# ROBERT MITCHELL & CO.,



## MONTREAL BRASS WORKS,

**Brass Founders and Finishers,**

**Plumbers, Coppersmiths, Gas and Steamfitters &c.,**

**ST. PETER AND CRAIG STREETS.**

*Estimates given for Heating Public and Private Buildings, by Steam  
and Hot Water.*

# McGAUVRAN, & TUCKER.

Messrs. McGauvran & Tucker rank amongst the oldest and best known lumber firms in Montreal, and have lately made a very large and important addition to their establishment. Not believing in having "all their eggs in one basket," this firm has wisely established three different storing grounds. One of these is situated at St. Gabriel's Island, one at the corner of Guy and William streets, and the other at the corner of St. Joseph and Canning streets. At the latter place, in the vicinity of the Lachine Canal, are their extensive saw and planing mills. The saw mill is a stone structure eighty by ninety feet, in which two large circular saws are kept constantly going. Adjoining this is the "factory," a brick building 90 x 120 feet, and three storeys in height. In the first story are the planing machines, in the second, is the sash factory, and in the third, is the box factory. In summer, and while the water is in the canal, all the machinery is run by water power, but when this is not available, a large steam engine, alongside the saw-mill is the motive power. Towards St. Joseph street is a large lumber-yard, 200 x 500 feet. At present there are 60 men employed in the works, but in busy times, they are increased to 75 or 80. Messrs. McGauvran & Tucker will always have on hand a complete assortment of house-finishings, mouldings, sheeting, etc., which may be obtained at the lowest rates. Their yards are stored with all kinds of well-seasoned lumber, and are well worthy of a visit from those contemplating building operations.

The head of the firm, Mr. J. W. McGauvran, M.P.P., has been nearly all his life in the lumber trade and is well and favorably known through the Ottawa Valley as well as throughout Quebec. He has been an Alderman of the City of Montreal for about fifteen years, during most of which time he has acted as chairman of the Water Committee, and Montreal owes a great portion of her splendid water works system to his untiring attention to his duties in that Committee. Mr. McGauvran has for two years past represented Montreal West in the Provincial Parliament, and has shown the same sound common sense, upright principles and determination to do "the best he knew how," which has gained for him the *soubriquet* of "Honest John McGauvran."

and Boston boats calling at Halifax on the way to and from Boston. A West India line, plying between Plymouth and the West India Islands, via Halifax was also started, but did not succeed. The Gas Company was incorporated about the year 1840, and in 1842 the gas was first lighted in the city.

About the same year, 1842, the City Act of Incorporation was obtained from the Legislature, since which time great improvements have been made in the general appearance and public institutions of the city. Under the Act of Incorporation the city is divided into six

wards, each being represented in the City Council by three Aldermen—who, with the Mayor and the Recorder, transact all the financial and civil business. A Stipendiary Magistrate was appointed by the Legislature in 1863, who is judge in all cases before the Police Court.

In 1847 the Water Company was organized, and introduced a supply of excellent water from the lakes, some five or six miles to the rear of the city; but these works have since been purchased by the City Corporation, and placed under the control of commissioners appointed by the city Government. The water commissioners in their turn gave place to the city Board of works elected by the members of the City Council from their own number in 1879.

In 1869 \$108,000 were expended in laying pipes to connect Spruce Hill Lakes with the city. These lakes being more elevated than the lakes of the previous supply, give the advantage in addition to a full supply of water for a city of 80,000 inhabitants, of a copious flow of water to the highest part of the citadel, or the most elevated buildings on the peninsula. Spruce Hill Lakes are capable of supplying on an average a million and a half of gallons of water daily.

Halifax has suffered severely from fire on several occasions; at one time nearly three blocks were consumed, extending from Hollis to Barrington street, and covering what was then, and is now, the finest part of the city. The greater part of the space thus laid bare has since been covered with handsome freestone, granite, and brick structures, which are not surpassed by any on this continent. One of those fires consumed a large wooden erection near the Province building, which was originally the Provincial Parliament Building, and besides gave accommodation to the Supreme Court, the Secretary and Treasurer's Office, with a commodious hotel. Latterly it was known as Hare's Building, and was occupied as shops and offices by persons engaged in various lines of business. After the fire the Government purchased the site, and erected a handsome edifice upon it, which has cost from twenty to thirty thousand pounds, and contains the Custom House and Post Office, Savings Bank and Revenue Office, with Museum.

Of the other public buildings now standing, the old Provincial Building is the chief. It is built of grey freestone, is one hundred and forty feet in length, seventy in width, and forty-two in height. On the ground flat are the offices of the Attorney-General, Receiver-General, Provincial Secretary, Commissioner of Mines, Crownland, and Superintendent of Education. On the second flat are the Halls and Committee Rooms of the two Houses of the Provincial Parliament, and the Legislative Library. It is a building of fine architectural proportions, but by being placed in an unfavourable locality, is less imposing in appearance than under other circumstances it would be.

Besides the Province Building there are the Government House, the Admiralty House, Dalhousie College,

# NOTICE TO BUILDERS AND CONTRACTORS.

## *McGAUVRAN & TUCKER*

### HAVE REMOVED

Their principal Yard and Offices

**To the Cor. of St. Joseph and Canning Sts.,  
MONTREAL,**

ADJOINING THEIR

### **SAW, PLANING, SASH, DOOR AND BOX FACTORY,**

And have largely increased their facilities for carrying on every branch of the lumber trade. Their  
sawn lumber stock comprises

### **DEALS, PLANKS, BOARDS,**

Seasoned and Green, of every Grade of Thickness, Dressed and Rough,

*Scantling, Laths, Furrings, Shingles, Pine,*

*Hemlock and Hardwood, Square and Flat Timber,*

*Split and Round Cedars, &c., &c.*

Their Sash and Door Factory is under the management of an experienced and thoroughly capable joiner, who has heretofore given much satisfaction to their numerous customers, and in this department they are prepared to execute orders, for every description of house finishing, promptly and satisfactorily. Packing cases and boxes of all kinds made to order at short notice, and at the lowest market prices. Orders sent by post will receive immediate attention.

### **TERMS LIBERAL.**

### **McGAUVRAN & TUCKER.**

### ST. THOMAS TANNERY.

Mr. M. T. Moore, manufacturer, dealer, and importer of all kinds of leather, hides, sheepskins, oils, shoe-findings, &c., was established in 1840. The store, office and factory are situated on Talbot Street, St. Thomas, Ont. The front building is of brick, two stories in height, one hundred by sixty feet and is occupied as a store and office. The Tannery is in the rear and is a large building. The Tannery and other buildings two numerous to mention, cover about two acres of ground. The firm employ about fifteen hands, turning out about one hundred and seventy-five sides of leather a week besides calfskins, kips, &c. Sixteen horse steam power is used in this factory.

the Asylum for the Insane in Dartmouth, which was enlarged in 1869, the Wellington Barracks, the Court House, the City and Provincial Hospital, the Penitentiary, the City Prison, and the City Market, which may be classed as public buildings, and some of them are very attractive and imposing in appearance.

During the year 1868 the British Government erected a Military Hospital in the Garrison field at a cost of \$150,000.

The Poor's Asylum, completed in 1869, is built of brick and granite at a cost of \$260,000. It is situated on the South Common, west of the Provincial Hospital, and is the most imposing edifice in the city.

The Blind Asylum, east of the Hospital, is a fine two storey brick and stone building. Its origin is due to the philanthropy of the late William Murdoch, Esq., who bequeathed \$5,000 towards the education of the blind in Nova Scotia.

The Halifax Club Building, the Temperance Hall, and the offices of several Banking and Insurance Companies are owned by the respective corporations bearing their names, and represent a very large accumulation of surplus capital. The Bank of Nova Scotia, in Hollis street, was built in 1866-67, of freestone, and cost upwards of six thousand pounds.

During the year 1871-2, two public halls were erected—the Argyle Hall in Argyle street, and the large hall in Hesselein's Building, in Hollis street—neither of which are suitable for the requirements of a city like Halifax, though very suitable for small assemblies.

Till 1848 or '49 the only Hall for public meetings was the old Mason Hall, which then only contained the front room, where all the public meetings were held, not suitable for churches. The Harmonic Hall was built, and is now used as a stable in connection with Moir & Company's bakery on Grafton Street. Temperance Hall was built by a joint stock company in 1849-50; it was then fully capable of accommodating all that would turn out for lectures, concerts, &c., but it has become too small, and perhaps before another ten years pass may come to the

same degradation which has befallen the Harmonic Hall, the idol of certain parties about 1841 and 1842.

The Banking House belonging to the Union Bank was built in 1863, at a cost of about ten thousand pounds. The School in Barrington Street, built in 1864 by the Roman Catholics, and taught by the Christian Brothers, is a substantial brick and granite structure. The Richmond Schoolhouse, erected in 1868, and capable of accommodating 240 pupils, the Morris Street Schoolhouse, built in 1869, at a cost of about 26,000 dollars, and having accommodation for 500 pupils; and the Schoolhouse in Albion street, erected in 1870, and capable of receiving 600 pupils, are all substantial edifices of brick and stone, erected to supply the increasing demand for school accommodation since the introduction of the Free School system. Some of the private business establishments and warehouses are such as will do credit to any city. Among these may be named the wholesale warehouses of Messrs. Kenny, Doull & Miller, Duffus & Co., Power & Co., Burns & Murray, S. Howard & Son, and many others in Hollis and Granville streets, and the still more durable and commodious wharf warehouses of Cunard & Co., Collin's (now Seeton's) and many others, with which the wharves are studded from Pryor's wharf to the Dockyard, and which are annually filled with merchandise of various sorts in which an extensive and lucrative trade is carried on with Great Britain, the United States, British and Foreign West Indies, and the neighbouring provinces.

Manufactures of every kind are yet comparatively in their infancy in Halifax. There are in the city and Dartmouth five or six iron foundries and machine shops, in some of which steam engines and other heavy machines are neatly constructed.

The machine shops of the Railway at Richmond, comprise a number of commodious structures, and give employment to from 100 to 150 men. Besides these there are two or three tobacco factories, three pianoforte factories, several furniture factories, a powder mill, one or two nail factories, sawing and planing mills, sash factories, &c., all of which are doing an extensive business, and yielding a handsome return for capital invested. A large flour mill has been completed, in connection with a bakery, occupying from Grafton to Argyle streets. This baking establishment is capable of working off one hundred barrels of flour per day.

There are several colleges and academies, and a number of private academies, schools, &c., in the city. The introduction of the Free School System in the city in 1866 has made great changes in the education both as regards its extent and the facilities of obtaining it. In 1866 the registered pupils in the schools were 2,670, while in 1871 they rose to 5,239. The teachers employed were eighty-seven against thirty-five in the former year. The expenditure for school purposes has risen from \$21,294.62 in 1866 to \$57,178 in 1872.

In the year 1828 there were six newspapers pub-

# M. T. MOORE,

PROPRIETOR OF THE

## ST. THOMAS TANNERY.

ESTABLISHED 1840.

Manufacturer and Importer, Dealer in all kinds of

**LEATHER, HIDES, SHEEPSKINS, OILS  
AND SHOE FINDINGS.**

TALBOT STREET, ST. THOMAS, ONTARIO.

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## ALEX. McKELVIE & SONS, VULCAN WORKS, THREE RIVERS,

MANUFACTURERS OF

## STEAM ENGINES,

Circular Saw Mills, Double Edgers, Double Butters,  
Filing Mills.

All kinds of Castings, Heavy and Light  
Forgings, Patterns, &c.

**THREE RIVERS, P.Q.**

#### MILLER BROTHERS AND MITCHELL.

The machine factory of Messrs. Miller Brothers and Mitchell, manufacturers of hydraulic engines, elevators, hand and steam hoists, pulleys, derricks, &c., is located at No. 53 St. Joseph street, Montreal, and was established in 1869. The factory is of brick and stone, having a frontage of thirty feet by a depth of one hundred feet, and being four storeys high. A thirty horse power steam engine is used, and employment is given to about fifty hands. Messrs. Miller Brothers and Mitchell also manufacture self closing hatches, doors and gates, which are extensively used and found to be equal to anything of the kind made in the Dominion or imported.

lished in Halifax; there are now 14—three daily, three tri-weekly, the six political journals; four are devoted to the interest of religious denominations, besides these a journal of agriculture, and a journal of education, both monthly, are published under the management of the Provincial Boards appointed to those two departments by the Legislature.

There are now twenty-six places of worship in the city. Seven of these belong to the Presbyterians, five to the Episcopalians, three to the Roman Catholics, four to the Wesleyans, two to the Baptists, one to the Congregationalists, one to the Universalists, one to the Freewill Baptists, two to the colored population, principally Baptists and Methodists: they are generally well filled on each returning Sabbath.

From 1827 to 1830, the middle portion of St. Mary's Cathedral was erected, but it has been enlarged and almost remodeled since that time; a massive granite front has just been completed which renders this by far the most expensive and durable ecclesiastical structure in the Province.

The Halifax Banking Company was organized in 1826, and is consequently the oldest banking company in the city. It was then a private company, but in 1872 it obtained a charter from the Dominion Government and is now a joint stock company. It was followed by the Bank of Nova Scotia and the Bank of British North America. There are now in all seven chartered banks and two or three Savings banks in the city. Within the past few years a considerable number of private individuals, and firms have gone into the Banking business in connection with Exchange under the name of Bankers and Brokers, and Hollis Street presents the appearance of a young Wall Street. And this gives facilities formerly unknown for Bank accommodation; and forming a favourable method of utilizing small sums held by the holding and provident classes.

There are two Building Societies, four Public Libraries, three Reading Rooms and several Benevolent Societies of various descriptions and nationalities (of which, the North British was the first established.)

Since the opening up of railway communication with

the interior of the Province, the city has increased rapidly in wealth. Since 1868, railways have been in operation from Halifax to Windsor, on the Bay of Fundy, and from Halifax to Truro, at the head of Cobequid Bay. The latter line is now continued to Pictou harbour, in the Straits of Northumberland, where it has already attracted a large trade from the Gulf of St. Lawrence, besides bringing the coal mines of Pictou county within easy reach of the city. The Windsor line of railroad has been extended to Annapolis, 120 miles from Halifax. The Intercolonial is in connection with the Eastern Extension of the United States and also with the Grand Trunk and connecting lines via Quebec. The discovery of gold in the Province, and the extensive investment of capital and employment of labour in gold mines, has also to some extent aided the commerce of the city, by providing a new and valuable export with which to pay for goods purchased in Great Britain. For the last few years the population of the city has been rapidly increasing, and when the projected lines of communication by rail and steamships with neighbouring Provinces and the United States are completed, Halifax must come to be one of the foremost cities in population and wealth, as she is already one of the most important in geographical position on the continent of America.

Since the abrogation of the Reciprocity Treaty, and especially within the past six years, Halifax has made rapid progress in manufactures. Four carriage factories, four large boot and shoe factories, which employ a large number of men. Gordon & Keith, McEwan & Sons, and other extensive furniture manufactories. Stephen & Son have their extensive warehouse in the old St. Andrew's Church, on Barrington street which has been handsomely refitted for the purpose.

Barrack street, which but a few years ago had only a collection of old wooden buildings, the resort of the depraved, within the past few years has undergone a rapid change. A handsome brick church was built as a Mission House by Edward Jost, Esq., at his own expense. Then the city of Halifax Fire Engine Company's building, a very fine structure with tower. The building has been followed by Taylor's boot and shoe factory. The corner of Brunswick and Prince street has been purchased for a Dispensary. In a few years this street bids fair to become one of the finest in the city.

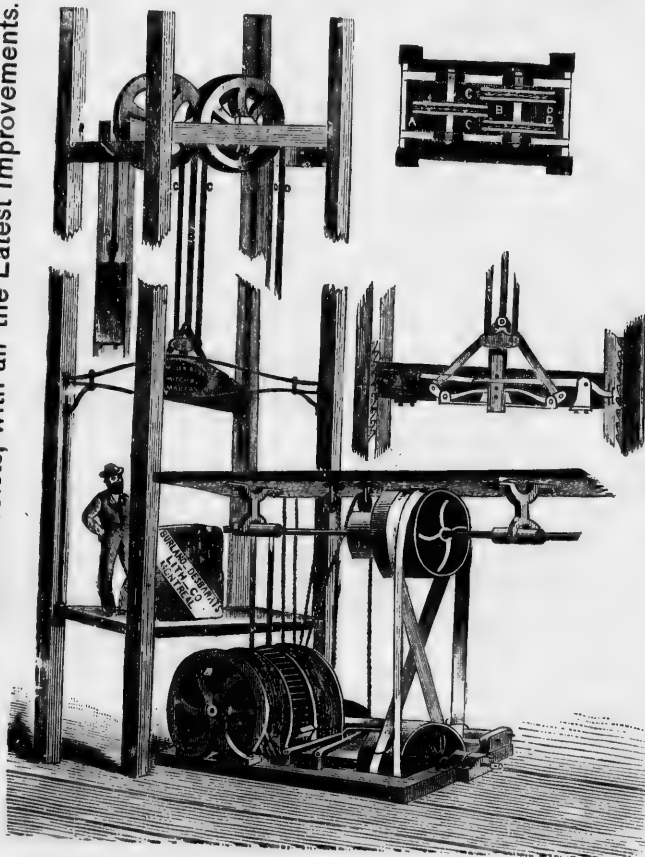
The extension of Barrington street on the south, and Lockman street on the north and south, is an improvement which reflects credit on the public spirit of the citizens. The old wooden erections on the Jacob property, which so long stood as an eyesore, have all been replaced by modern structures. On Barrington street the many improvements now in progress make it appear that at no distant day this will be the first street in the city for the retail trade.

The only buildings of consequence lately finished with in the city are the market structures on Argyle street, on the property lately owned by A. M. Uniacke, Esq.



# MILLER BROS. & MITCHELL,

**MANUFACTURERS OF**  
**The Lewis Hydraulic Engine as applied to Elevators,**  
 And all purposes where a small and economical power is required.  
**Steam Power and Hand Hoists, with all the Latest Improvements.**



**MANUFACTURERS OF**  
**The celebrated Key Stone and Bangor Bark Mills,**  
 AND ALL KINDS OF MILL WORK, HAND AND STEAM DERRICKS,  
 Shafting, Hangers, Pulleys, Gearing,

*Wheels for transmission of Power by Wire Rope, &c.*

**Patent Self-Closing Hatches,**  
**Doors and Gates.**  
**53 St. Joseph Street, - - - - MONTREAL.**

## PARIS FOUNDRY AND AGRICULTURAL WORKS.

The agricultural works of Mr. David Maxwell, Paris, Out., were established in 1869, and cover over half an acre of ground. The buildings are all of brick and water power is used to supply the motive force. From thirty-five to forty hands are constantly employed. The main building is one hundred and thirty feet long by forty feet depth, and is used as the machine shop. This shop is furnished with all the most improved machinery for turning out first class agricultural implements, and a specialty is made of manufacturing implements and machinery particularly adapted for the use of stock raising. In this branch of the business Mr. Maxwell has "few equals and no superior" in Canada. The foundry is forty feet by seventy five, one and a half story high; the blacksmith shop forty feet by sixty, and the storehouse is a fine brick structure, two storeys high, eighty feet by thirty, with office attached. Mr. Maxwell does an extensive trade throughout the Dominion, and his goods so well recommend themselves as to need little further commendation.

The old homestead is retained, but considerably altered so as to destroy its historical associations as the palatial residence of the Attorney General of Nova Scotia—the first Uniacke. The other is the Young Men's Christian Association building on corner of Granville and Prince streets. The old wooden erections on that spot are happily removed, and a beautiful brick building with granite facing was opened about May 1874. It is specially intended for the use of the young men of the city. The lower flat is occupied by the banks of Montreal at a rent of \$1,600, and the other portions contain a large reading room, library, class room, parlour, dining and bath rooms, with a large hall on the third or fourth story. The cost of the building and ground exceeds thirty-five thousand dollars, much of which has been contributed by the merchants of the city, and will long remain a monument of the public spirit of the donors, foremost among whom may be named John S. Maclean, Esq., the president of the Association.

During the year 1872 a handsome Fire Engine house with tower and bell at the west end of Gerriah street, on Maynard street, was built. This building is intended for an Engine house and Police Station for the north end of the city; and being on a commanding position presents a fine aspect from many parts of the city as well as Dartmouth, where it is seen to great advantage.

Nor can we close this notice of the city improvements without a reference to the Park, formally opened on the 23rd July, 1873, for the benefit of the citizens. It is situated on the south point of the Peninsula of Halifax, in what was known as the Tower woods. By the serpentine road several miles of a handsome carriage road has been obtained, from many parts of which some of the finest scenery in the dominion may be seen. It com-

mands fine views of the Atlantic Ocean, the North West Arm, McNab and George's Islands, and the rugged and picturesque, as to be seen at Ferguson's Cove, York Redoubt, &c., &c.

The financial condition of the corporation may be summed up as follows, being the exact condition of the debt of the city (May, 1872), bearing interest at 5, 5½, 5¾, and 6 per cent. paid half yearly.

1. City which includes old Street Loan, City prison, Hospital Buildings Market Slip, Sidewalks, Lockman, Principal street, &c., &c. Debentures 5 per cent.....	\$365,000.00	\$21,043.43
2. Water Works do bearing 5 per cent.....	689,653.33	32,769.96
3. School do (all bearing interests at 6 per cent).....	116,965.00	7,018.70

The city assessment for 1873 was \$191,274.47.

Since 1872 very little has been added to the funded debt of the city. In 1873 the City Fire Alarm, cost \$8000, which was secured on debentures at six per cent. and a similar sum for the extension of Queen street, in 1874. But at present there are considerable improvements in progress which must cost the city large sums,—to purchase back the Leasehold rights of the Horticultural Gardens for \$18,000, being eight acres of ground which will, when completed, make the Gardens of the city of Halifax very valuable.

Several very important commercial changes have taken place during the past few years, from which great good is anticipated. Among these may be mentioned the opening of our coast fisheries to the American fishermen, and the opening of the American fish market to our merchants, which went into operation on the 1st July, 1872. The other commercial regulation, which promises much for the prosperity of the city, is the alteration of the Interest Laws of the Province by which a higher rate of interest than 6 per cent. is allowed to be charged by private individuals as well as banks, and the rate of interest on mortgages fixed at 7 per cent. by agreement.

All descriptions of bank stocks, excepting Liverpool banks, sell considerably above par, but at a rate that yields a dividend that will amount to six per cent. per annum. The only Local Bank which declared ten per cent. dividend upon its capital, is the Union Bank of Halifax the expectations are strong that others will follow. Provincial and City debentures bearing 6 per cent. have ready sale at a small premium but sometimes the premium goes as high as 5 and 6 per cent. The usual rate of discount at banks is from 8 to 10 per cent.

The Banks allow four per cent. on deposit receipts but for special deposits for large sums, and subject to certain conditions, five per cent. is allowed.

Fifteen millions of dollars is the amount used in the banking operations of the city, contributed by the five local and two other chartered banks. To which add the sums contributed by the private banker. Deposits at four and five per cent. interest, in those local banks footed up to \$2,360,615 about the close of the year 1873.

The facilities for investments have increased during the past few years, but more especially since the opening of

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Capital	Interest
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5.00	7,019.70

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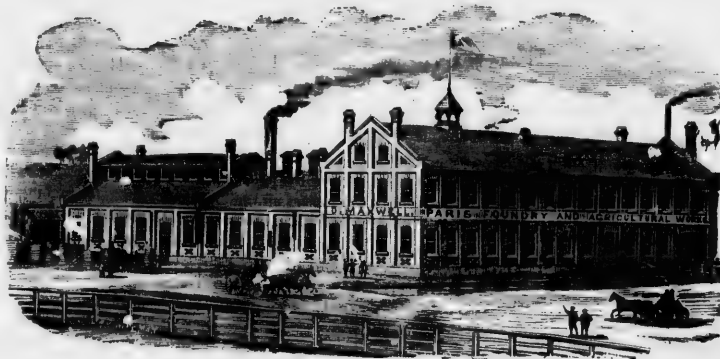
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# PARIS FOUNDRY AND AGRICULTURAL WORKS.

(ESTABLISHED 1859.)



## Manufacturer of AGRICULTURAL IMPLEMENTS AND MACHINERY,

Specially adapted for the use of Stock Raisers.

**SEND FOR CIRCULAR.**

**DAVID MAXWELL,  
PARIS, ONTARIO.**

#### MCPHERSON, GLASGOW & CO.

Messrs. McPherson, Glasgow & Co., founders and manufacturers, have been established since 1848, and their threshing machines and portable engines have gained great celebrity throughout the Dominion. The firm has two large establishments, one at Fingal, Ont., and the other at Clinton. The factory at Fingal is a frame building, two stories high, and occupies a large space of ground, giving employment to about fifty men. In the front is the finishing shop, forty feet square, and also the office; in the rear is the engine room, where a twenty horse power engine is used. The wood shop is two stories high, forty feet by fifty. The wagon shop, where all the trucks, &c., are built, is forty feet square, and the two storerooms are respectively eighty feet by forty-two, and thirty feet by sixty. The establishment at Clinton is of about the same extent as the one at Fingal, and turns out equally good work.

the Stock Exchange or Board of Brokers in January, 1874. The members of this institution meet three times a week, and all transactions in stocks are either consummated or reported there and hence the real values of all respectable stocks are at once made known to the public;—and as the prices are by per cent. instead of the old method of so much per share the relative values can at once be ascertained and compared.

#### DUNDAS,

An incorporated town in Wentworth Co., Ont., at the head of Burlington Bay, formed at the western extremity of Lake Ontario, and on the G. W. R., 5 miles W. of Hamilton. It has agency of several insurance companies, an agency of the Canadian Bank of Commerce, a printing office, issuing a weekly newspaper, 2 telegraph agencies, about 40 stores, 6 hotels, and churches for the Episcopalians, Roman Catholics, Wesleyan Methodists, and Presbyterians. It possesses unlimited water power, and has manufactories of Iron castings, machinery of every description, edge tools, combs, paper, soap and candles, leather, woollen and cotton goods, wooden ware, &c. The Desjardins canal gives it water communication with Hamilton and other ports.

#### BRANTFORD,

A commercial town and capital of the Co. of Brantford, Ont., 24 miles S.W. of Hamilton, is situated on Grand River, which is navigable to within 2½ miles of the town, for which distance a canal has been opened, affording uninterrupted water communication with Lake Erie. It is

an important station on the Buffalo and Goderich branch of the G.T.R. A branch of the G.W.R. connects the town with the main line at Harrisburg, and a railway 45 miles long is projected, which will connect it with Port Burwell, on Lake Erie. Brantford has agencies of the Bank of Montreal, Bank of British North America, Canadian Bank of Commerce, and several assurance and insurance companies, and contains churches of 10 denominations, 2 printing offices, from which 2 daily and 2 weekly newspapers are issued, 2 telegraph offices, about 80 stores, a handsome stone court house, a widows' and orphans' home, and other public buildings. The buildings erected by the Grand Trunk are on a very extensive scale, occupying 11 acres. They consist of a repair shop, engine house and round house, built of white brick. Among the manufactures of the town may be mentioned brass and iron castings, tin and japanned ware, sashes and blinds, engines and mill machinery, agricultural implements, and stoneware produced nowhere else in the province. The Brantford machine works and the Victoria foundry each employ over 100 men. The streets of Brantford are lighted with gas. The town derives its name from Brant, the great Indian chief, who surrendered the present plot to the Government in 1830. Brantford is a port of entry.

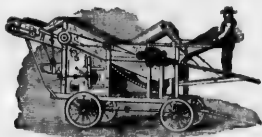
#### ST. THOMAS WEST,

An incorporated town of Ontario, capital of the County of Elgin, on Kettle Creek, and on the Great Western, Canada Southern, St. Clair Branch, and London and Port Stanley railways, 15 miles from London, 9 miles from Port Stanley. It contains churches of 6 denominations, (Episcopal, Roman Catholic, Baptist, 2 Methodist, Bible Christian, and Presbyterian,) 2 branch banks, 2 telegraph offices, 2 newspaper offices, about 100 stores and 30 hotels, 5 saw mills, 2 grist mills, 2 large foundries, 3 taneries, 1 block and tackle factory, 1 car wheel foundry, Canada Southern car shops, Air Line work shops, and a large number of factories of various kinds. The public buildings are the town hall and market, court house, and music hall. Four railways run into the town. The station of the Canada Southern is one of the finest in Canada. It contains all the head offices of the company. The car shops of this company, in which about 500 men are employed, are also splendid buildings. The town has advanced very rapidly during the past four years on account of the railways running through it. Another railway, the Credit Valley, running from St Thomas to Toronto, is under construction. There is a custom house officer and an American consul.

#### INNESFALL,

An incorporated town in Oxford County, Ont., on the River Thames and on the G. W. R., 19 miles N.N.E. of

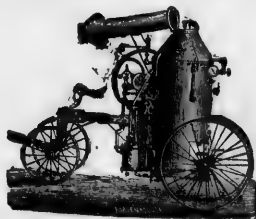
# Important Improvements for 1876.



**THE UNRIVALLED**  
**GRAIN SAVING AND LIGHT RUNNING**  
**"CLIMAX"**  
**THRESHING MACHINES,**  
**"VIBRATOR" THRESHING MACHINES,**

WITH PITT'S IMPROVED HORSE POWERS, EITHER "DOWN" OR "MOUNTED."  
*Substantial, Durable, Handsome. The leading Threshing Machines of the Dominion.*

## "MONITOR" AGRICULTURAL STEAM ENGINES,



The best Portable Engines in use. Require one half the Water, one half the Fuel, and are only two-thirds the Weight of others of equal power.

**EVERY MACHINE FULLY WARRANTED.**

MANUFACTURED BY

MACPHERSON, GLASGOW & CO., FINGAL, ONT.

GLASGOW, MACPHERSON & CO., CLINTON, ONT.

*Order early. Send for Illustrated Circulars, Price Lists, &c.*

#### McFARLANE, HARVIE & CO.

The enterprising firm of McFarlane, Harvie & Co., machinists and founders, manufacturers of steam engines, wood working machinery, &c., is situated at the corner of Hugh and Albert Streets, Ottawa, and was established in 1873. The factory has all the newest and best machinery for turning out first class work, and makes a specialty of wrought iron work of all descriptions, which is made in great variety and in a style second to none. The firm employs about twenty-five hands.

London. It contains churches, of seven denominations, 2 branch banks, several insurance agencies, 2 telegraph agencies, a number of stores and hotels, 2 printing offices, issuing weekly newspapers, and manufactories of iron castings, machinery, woollens, wooden ware, cheese, &c., also saw and grist mills. Ingersoll has a large export trade in lumber, grain and country produce.

#### OSHAWA,

An incorporated village of Ontario, County of Ontario, situated on Lake Ontario, with a station on the G.T.R., 33½ miles N.E. of Toronto. It is an important market town, and has manufactories of printing presses, steam engines and boilers, mill machinery, agricultural implements, musical instruments, furniture, leather, wooden ware, boots and shoes, &c., and contains several churches 6 hotels, a number of stores, two telegraph offices, a printing office, issuing a weekly newspaper, and 2 branch banks. Oshawa is a port of entry. Its harbour on Lake Ontario is called Sydenham.

#### CATHAM

The chief town of the Co. of Kent, Ont., is situated on the River Thames, and on the G. W. R., 67 miles S. W. of London. It has agencies of 3 banks and of a number of fire, life, and marine insurance companies, and contains besides the county buildings, 8 churches, 2 printing offices, 2 telegraph offices, 3 saw mills, 5 grist mills 3 woollen mills, 5 foundries, 1 planing mill, pot and pearl asheries, machine shops, soap, candle, and other factories, a brewery and distillery, and numerous stores. A very extensive export trade is done in grain, pork and other country produce, and in lumber, square timber, railroad ties, staves and cordwood.

#### WOODSTOCK

An incorporated town and port of entry of Ontario, capital of the County of Oxford, on the River Thames and Cedar Creek, and on the G. W. R., 49 miles from Hamilton, 29 miles from London. It is a place of considerable trade, possesses good waterpower privileges and contains, besides the county buildings, 8 churches, 13 hotels, 66 stores, 2 branch banks, agencies of 2 telegraph and several

assurance and insurance companies, 3 printing offices, issuing weekly newspapers, 2 grist mills, 1 oatmeal mill, 1 woollen mill, and 6 furniture factories. Woodstock is the centre of one of the best sections of the province. It will be improved by the construction of the Credit Valley railway and the railway from Port Dover to Stratford, and thence to Lake Huron. The town has two Canadian Literary Institutes, a flourishing educational establishment with nearly 200 students and a full staff of professors and teachers. Its public buildings are first class, and its hotels attract large numbers of Americans in the summer, who speak highly of the place and the beauty of the scenery.

#### ROCK ISLAND

A thriving post village in Stantead Co., Que., on the M. V. R., 1 mile from Stanstead, from which it is separated by a high range of hills. It contains 3 large boot and shoe factories, 1 soap factory, 2 iron foundries, a printing office, telegraph office, and about 12 stores. There are mineral springs in the vicinity.

#### SMITH'S FALLS.

An incorporated town of Ontario, Co. of Lanark, on the Rideau Canal, and on the B. & O. R., 28 miles N.W. of Brockville. It has manufactories of woollens, agricultural implements, stoves, ploughs, axes, mill machinery, leather, wooden ware, &c.; several grist and saw mills, 5 Protestant churches, a Roman Catholic chapel, 2 telegraph offices and a number of stores.

#### FINGAL

A thriving post village in Elgin Co., Ont., 7 miles from St. Thomas. It contains saw, grist, and carding mills, an iron foundry, several factories and stores, and a telegraph office.

#### GANANOQUE

An incorporated village of Ontario, Co. of Leeds, on the N. shore of the St. Lawrence, at the mouth of the Gananoque river, and on the G.T.R., 18 miles N.E., of Kingston, 30 miles W. of Brockville. It has unlimited water power, and contains churches of 4 denominations, 1 branch bank, several assurance and insurance agencies, 2 telegraph offices, 1 printing office, 4 hotels, a number of stores, saw and grist mills, and manufactories of woollens, iron castings, edge tools, machinery, agricultural implements, nails, leather, wooden ware, boots and shoes &c., &c. The railway station is 2½ miles from the post office. Gananoque is a port of entry.

#### CLINTON,

An incorporated village in Huron Co., Ont., with a station on the G.T.R. (Buffalo and Goderich division,) 13 miles from Goderich. It has a large grain and produce trade, and contains 4 churches, 7 hotels, a branch



R. MCFARLANE.

P. HARVIE.

MCFARLANE, HARVIE & CO.,

*MACHINISTS & FOUNDERS,*

Manufacturers of

STEAM ENGINES,

Wood-Working Machinery &c.

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**Wrought Iron of all kinds a Specialty.**

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*REPAIRS PROMPTLY DONE.*

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SHOP - Cor. Hugh & Albert Streets.

OTTAWA.

*Send for Price List. - - - P. O. Box 470.*

### W. MCCLUNG.

Carriage Manufacturer, was established in 1858. The factory and office are situated on King street in the town of Bowmanville, Ontario. The show room is built of frame, two storeys in height, twenty-five feet front by seventy-two feet deep. The blacksmith shop is built of brick, two storeys in height, 24 x 36. The wood working shop is two storeys in height 24 x 38. The second floor is used as a paint shop. Over the show room is the trimming shop. The buildings, yards, &c., cover about an acre and a quarter of ground and some ten men find employment in this establishment.

bank, several insurance agencies, 1 printing office, 2 telegraph offices, a number of stores, and several large saw, grist and other mills, foundries and woollen factories. Salt wells are worked in the village.

### LINDSAY,

The chief town of the Co. of Victoria, Ont., is situated on the Rivea Scugog, and on the M.R., 43 miles from Port Hope. It has an extensive trade in lumber and grain, contains 2 telegraph offices, 3 branch banks, the county buildings, several churches and schools, grist and saw mills, and a number of fine stores, and has manufactories of iron casting, machinery, leather, woolen goods, wooden ware, extract of bark, boots and shoes, &c.; also a brewery, and several hotels. Two weekly papers are published.

### PRESCOTT,

An incorporated town and port of entry of Ontario, Co. of Grenville, on the River St. Lawrence, at the S. terminus of St. L. & O. R., and on the G.T.R., 114 miles W. of Montreal, 54 miles S. of Ottawa. It has 1 branch bank, 2 telegraph offices, 4 churches, about 50 stores, 2 iron foundries, 3 breweries and 1 distillery. A newspaper is published here. Fort Wellington is near Prescott. A short distance below the town is Windmill Point, where stand the ruins of an old stone windmill in which, in 1837, a number of "Patriots" established themselves but were driven out with severe loss. The town of Ogdensburg lies immediately opposite Prescott.

### PARIS,

An incorporated town of Ontario, Co., of Brant, on Grand River, at the intersection of the Great Western and (Buffalo and Goderich branch) Grand Trunk railways, 29 miles W. of Hamilton. Smith's Creek, which here enters Grand River, divides Paris into two parts, called the upper and lower villages. Here are agencies of several insurance companies, 6 churches, a branch bank, 2 telegraph offices, 2 newspaper offices, 7 hotels, about 40 stores, and manufactories of woollen goods, iron castings, machinery, leather, flour and tobacco.

The town also contains an oil refinery, pottery, knitting mills, plaster mills, &c. There are extensive beds of gypsum in the vicinity. Paris is a port of entry.

## THE INTERNATIONAL EXHIBITION AT PHILADELPHIA

The great International Exhibition now opened at Philadelphia is one of the most important of those gatherings ever held. Just a quarter of a century has elapsed since the first Great Exhibition—that of 1861: and that of the principal states of the world have since followed the example then set by England. America held its first International Exhibition at New York, in 1853: and that of 1876, gathered at Philadelphia, is designed to commemorate the centenary of the independence of the United States, the celebrated "Declaration of Independence" having been adopted on the 4th of July, 1776.

The Exhibition of 1876 is held in the grounds of the Fairmount Park, overlooking the city of Philadelphia. The buildings are as follows:—

1. The Industrial Hall, 21'02 acres.
2. The Art Gallery, 2 acres.
3. Machinery Hall, 14 acres.
4. Agricultural Hall, 10 acres; and
5. Horticultural Hall, 1'02 acres.

The five buildings thus cover an area of over 45 (45.04) acres. The upper floorings in projections and towers of Industrial Hall increase the area slightly, but not as much as an acre in all. There are liberal spaces between the several halls, the largest being that between the Industrial Hall, which is the main building, and the Art Gallery—300 feet. The main hall is in the form of a parallelogram, extending east and west 1,880 feet in length, and north and south 464 feet in width. The best view is provided in a tower in the centre of this hall of 184 feet square, upon which rise four turrets of 48 feet square, the highest point being 120 feet. North of this main hall, and connected with it by a passage-way, is the Art Gallery, which is the architectural triumph of the whole, and is to remain as a permanent establishment. The style is modern *renaissance*, the materials used being altogether fireproof—granite, iron, and glass. The machinery and agricultural halls are on the west of the main building. The supports in general are wrought-iron columns, and the roofs are the wrought-iron roof trusses in general use for depots and warehouses, consisting of straight rafters with struts and tie-bars. The total cost has been estimated at eight million of dollars.

The amount of space set apart for the several foreign nations is as follows, giving the highest first:—

Great Britain and Colonies.....	46,748 square feet.
France and Colonies.....	27,264 "
German Empire.....	27,264 "
Austria.....	23,328 "

W. McCLUNG,



MANUFACTURER OF

CARRIAGES,

OF ALL KINDS

CUTTERS AND SLEIGHS,

KING STREET, EAST,

BOWMANVILLE, - - - - - ONT.

# JOHN McDUGALL & SONS.

It is not often in the history of manufacturing industries, on this continent, that one can look back for nearly a century and a half to the foundation of a factory; and the great changes which have taken place in that time both in Canada and the United States makes one almost wonder that any infant industry could have withstood all the "changes and chances" of so long a period. The St. Maurice Forges, situated in St. Maurice County, Quebec, were established in 1738 and have always remained in one family, being now under the management of Messrs. John McDougall & Sons, descendants of the founder of the establishment. The St. Maurice Forges turn out about one thousand tons of charcoal pig iron, made from fine bog ore; and the supply not being sufficient new forges were established in 1858 at L'Islet, two miles from St. Maurice, with a capacity of twelve hundred tons. The iron of these foundries has for many years been used exclusively for the manufacture of car-wheels in Montreal for the Grand Trunk Railway, and is also extensively used in the construction of car-wheels for other railways. Attached to the St. Maurice Forges there is also an axe factory, with a capacity of turning out about three thousand boxes per annum. The pig iron manufactured by Messrs. John McDougall & Sons, is justly esteemed as being of as fine quality as any made in the Dominion, and their axes are unrivalled. The office of the firm is at Three Rivers, Province of Quebec, where orders are promptly attended to.

Brazil.....	17,520	square feet.
Spain and Colonies.....	15,522	"
Argentine Republic.....	15,522	"
Italy.....	11,664	"
Mexico.....	11,664	"
Peru.....	11,664	"
Russia.....	10,044	"
Sweden and Norway.....	10,044	"
Chili.....	9,744	"
Egypt.....	7,776	"
Netherlands and Denmark.....	7,776	"
Persia.....	7,776	"
Turkey.....	7,776	"
United States of Columbia.....	7,776	"
China.....	7,290	"
Japan.....	7,290	"
Switzerland.....	6,156	"
Guatemala.....	5,508	"
Venezuela.....	5,508	"
Nicaragua.....	4,536	"
San Salvador.....	4,536	"
Siam.....	3,946	"
Ecuador.....	3,888	"
Honduras.....	3,888	"
Sandwich Islands (Hail).....	3,888	"
Liberia.....	2,268	"

The space allowed for the American States is 123,160 square feet. There remain in reserve for contingencies, 21,408 square feet. The grand total of available space accordingly is 145,000 square feet.

In accordance with the precedents of previous International Exhibitions, British exhibitors, or their agents, must be responsible for the packing, forwarding, unpacking, and reception of their goods, as well as for their safety during the Exhibition.

The salient points of the general regulations affecting foreign exhibitors, and the special regulations governing the free importations of exhibits, as determined by the Centennial Commission, are as follows:—

## PRINCIPAL CONDITIONS

1. The Exhibition opened at Philadelphia on the 10th of May, and will close on the 10th of November, 1876.
2. Before the 1st of May, 1875, the British Executive was to state whether the space allotted were sufficient or deficient and should therefore have received the demands from proposing exhibitors before the 25th of April, 1875.
3. Before the 1st of December, 1875, the Executive must send in plans in detail showing individual allotments, with all catalogue information.
4. There will be no charge for space.
5. No charge will be made for a limited quantity of steam and water power. The quantity to be arranged at the time of the allotment of space, and any excess of power to be applied for at the same time, and to be furnished by the Centennial Commission at a fixed rate.
6. Goods for exhibition to be considered as bonded and exempt from Customs duties.
7. The usual noxious and explosive substances are prohibited.
8. Exhibitors or their agents are responsible for the packing, forwarding, receiving, and unpacking of their goods, at both the opening and close of the Exhibition. The owner, agent, or consignee must be present to receive goods.
9. Reception of exhibits will commence on the 1st of January, 1876, and no article will be admitted after the 31st of March, 1876.
10. The installation of heavy objects requiring special foundations or adjustment should, by special arrangement, begin as soon as the progress of the works will permit.
11. Space assigned and not occupied on the 1st of April, 1876, will revert to the Director-General for re-assignment.
12. All goods must, under penalties, be removed before the 31st of December, 1876.
13. The objects exhibited will be protected against piracy of inventions or designs. Sketches, drawings, photographs, or other reproductions of articles exhibited will only be allowed upon the joint assent of the exhibitor and Director-General.
14. The Centennial Commission will take precautions

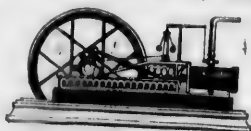
**JOHN McDOUGALL & SONS,**  
MANUFACTURERS OF  
**COLD BLAST CHARCOAL PIG-IRON,**  
**AXES, &c.,**

AT THE  
**St. Maurice and L'Islet Forges,**

OFFICE AT  
**THREE RIVERS, P.Q.**

---

**JOHN MAKINS,**  
**Iron and Brass Founder, Engineer, &c.,**  
**RIDOUT STREET, LINDSAY.**



**SHAFTING, PULLIES, HANGERS, MILL GEARING, &c.,**  
**Makers of Circular Saw Rigs, Saw Carriages, &c.**

*This Rig is so substantially got up that those who use it pronounce it the best in the country.*

**SHINGLE MACHINES, JOINTERS, X CUT AND OTHER SAWS.**

Our 2-Horse Power and Saw attachment are without exception the most substantial and scientific get up before the public, and for the last two years since our present improvement was adopted has given universal satisfaction.

**REPAIRS PROMPTLY EXECUTED.**

Lumber and Shingle Manufacturers will please call on us before purchasing elsewhere and examine our machines and prices.

## THE MOORHEAD MANUFACTURING COMPANY.

London, "The Forest City," boasts many fine buildings and prominent industries, but she has no place of which she ought to feel more justly proud than the Moorhead Manufacturing Company, whose four story brick building, two hundred feet long, extending from 184 to 198 King street, is a credit to the proprietors and an ornament to the City. The Factory was established in 1855, and now gives constant employment to over two hundred men; and being so thoroughly furnished with all necessary machinery, it justly ranks amongst the largest and most complete furniture factories in the West, and their goods are widely spread over the whole Dominion. The ware room on King street has a frontage of seventy-five feet by a depth of fifty; the factory proper is one hundred feet by fifty, the finishing room is sixty feet by seventy, all these buildings are four storeys high. The upholstery room is two stories high, built of brick, one hundred and fifty feet long by thirty wide; the engine room and planing mill is of the same height, built of brick and fifty-five feet by forty, and the drying kiln, also built of brick and two stories high, is forty feet by fifty. Mr. George Moorhead, President of the Company, has literally grown up in the business, entering it as a boy and by pains and industry working the Company up to its present position. The furniture of the Company is all made of the best material, and some of it is very elegantly finished. The Company also import carpets, curtains, cornices, &c., so that they can take an empty house and furnish it complete in a manner that few manufacturers in the Dominion can equal and none excel.

for the safe preservation of all objects in the Exhibition, but will not be liable. Facilities will be arranged by which exhibitors may favourably insure their goods.

15. Special regulations will be issued concerning the exhibition of Fine Arts, the organisation of International Juries, Awards of prizes, and sales of special articles within the buildings.

Each package must be addressed:—"To the Commission for [name of country] at the International Exhibition of 1876, Philadelphia, United States of America," and should have at least two labels affixed to different but not opposite sides of each case, and giving the following information:—

1. The country from which it comes; 2. Name or firm of the exhibitor; 3. Residence of the exhibitor; 4. Department to which exhibits belong; 5. Total number of packages sent by the exhibitor; 6. Serial number of that particular package. Within each package should be a list of all objects it contains.

### CLASSIFICATION, &c.

All exhibits, except in such Collective Exhibitions as

may receive special sanction, will be arranged under some one group of the ten following departments:—

1. Raw Materials—Mineral, Vegetable, and Animal.
2. Materials and Manufactures used for Food or in the Arts, the result of Extractive or Combining processes.
3. Textile and Felted Fabrics; Apparel, Costumes, and Ornaments for the person.
4. Furniture and Manufactures of general use in Construction and in Dwellings.
5. Tools, Implements, Machines, and Processes.
6. Motors and Transportation.
7. Apparatus and Methods for the Increase and Diffusion of Knowledge.
8. Engineering, Public Works, Architecture, &c.
9. Plastic and Graphic Arts.
10. Objects illustrating Efforts for the Improvement of the Physical, Intellectual, and Moral Condition of Man.

The Catalogue will be published in four languages—namely, English, French, German, and Spanish.

The system of awards has been made the subjects of careful study, and, after considering all the plans heretofore adopted, a new and different one has been selected. The awards at Philadelphia are to be based upon written reports attested by the signatures of their authors. Two hundred judges are appointed to make these reports, one half being citizens of the United States, and the other half foreigners. They are selected for their known qualifications and character, and will be experts in departments to which they are respectively assigned. The foreign judges are appointed by the Commission of each country, and in conformity with the allotment to each of space in the Exhibition. The United States' judges are appointed by the Centennial Commission. Two hundred thousand dollars are paid to these judges, each being given \$1,000 for personal expenses. The reports and awards are to be based upon merit, and the elements of merit are declared by the authorities to include considerations relating to originality, invention, discovery, utility, quality, skill, workmanship, fitness for the purposes intended, adaptation to public wants, economy, and cost. Each report, as soon as completed, is to be delivered to the Centennial Commission for final award and publication. The awards, which will be finally decreed by the Commission, in compliance with the Act of Congress, will consist of a diploma with a uniform bronze medal, and a special report of the judges on the subjects of the award. Each exhibitor will have the right to reproduce and publish the report awarded to him, although the Commission reserves the right to publish and dispose of all reports in the manner it thinks best for public information, and also to embody and distribute the reports as records of the Exhibition. A series of very fine medals has been prepared at the Mint of the United States, under authority of the Government, to be issued as mementoes of the Exhibition. Their devices are appropriate, the obverse representing 1776, and the



THE  
**GEORGE MOORHEAD MANUFACTURING CO.,**  
 LONDON, ONTARIO,



*Furniture Manufacturers,*  
**Parlor and Drawing Room Suites,**  
*Bed Room Suites, Dining Room Furniture,*  
*&c., &c., in great variety.*

House Furnishings, including Carpets,  
 Curtains, Cornices, &c.

*Hotels and Private Residences Furnished throughout at Special Rates.*

**Inspection Invited.**

**The George Moorhead Manufacturing Company,**

No. 184 to 198 KING STREET,

**LONDON, Ontario.**

reverse 1876. The medal of award will also be struck at the Mint, but its design has not yet been finally selected.

The admission fee to the Exhibition is uniform from the opening to the close at the fixed price of 50c. for each single admission. This fee will admit to everything and there will be no season or commutation tickets issued. The rate is fixed at the lowest price consistent with making the Exhibition self maintaining. The estimate is that during the period of the Exhibition there will be at least 10,000,000 admissions, and the authorities have perfected plans for receiving, accommodating, and taking care of the visitors. The estimated daily average of visitors is set down at 50,000 and on some days many more.

It has been proposed, in connection with the Exhibition, to hold a series of international and intercollegiate boat-races on the Schuylkill river. Mr. Ferguson, Commodore of the Schuylkill Navy, has visited most of the rowing associations in the principle cities of England and France, and has found a general willingness to take part in the competition. The Schuylkill Navy have arranged the following programme—the races to take place as follows:—

“First—Grand international race for four-oared shells, for the championship of the world, to be followed by races in pair-oared and single shells, under the same condition.

“Second—Grand Contest of the American college clubs for the intercollegiate championship of the United States.

“Third—Grand international collegiate contest between American and foreign universities for the amateur collegiate championship of the world.

“Fourth—Grand national contest by the members of the National Amateur Association of the United States.

“Fifth—Contests in boats of every character, to be participated in by the professional oarsmen of America.

“Sixth—Contests in boats of every character, to be participated in by the professional oarsmen of the world.

#### PRESIDENTS OF THE UNITED STATES.

NAME.	STATE.	TERM OF SERVICE.	BORN.	DIED.
George Washington.....	Virginia.....	1789-1797	1732	1799
John Adams.....	Massachusetts...	1797-1801	1735	1826
Thomas Jefferson.....	Virginia.....	1801-1809	1743	1826
James Madison.....	Virginia.....	1809-1817	1751	1837
James Monroe.....	Virginia.....	1817-1825	1759	1831
John Quincy Adams.....	Massachusetts...	1825-1829	1767	1848
Andrew Jackson.....	Tennessee.....	1829-1837	1767	1845
Martin Van Buren.....	New York.....	1837-1841	1782	1862
William H. Harrison.....	Ohio.....	1841-1841	1773	1841
John Tyler.....	Virginia.....	1841-1845	1790	1862
James Knox Polk.....	Tennessee.....	1845-1849	1795	1849
Zachary Taylor.....	Louisiana.....	1849-1850	1784	1850
Millard Fillmore.....	New York.....	1850-1853	1790	.....
Franklin Pierce.....	New Hampshire	1853-1857	1804	1869
James Buchanan.....	Pennsylvania...	1857-1861	1791	1868
Abraham Lincoln.....	Illinois.....	1861-1865	1809	1865
Andrew Johnson.....	Tennessee.....	1865-1869	1808	1875
Ulysses S. Grant.....	Illinois.....	1869-1877	1823	.....

#### LUMBERING ON THE OTTAWA.

A short preliminary description of the course of the noble river which gives its name to the principal lumbering region of Canada will not, we hope, be uninteresting to the general readers of this work. Although few adventurous tourists have traced the Ottawa to its source, amidst the forest solitudes of the far northern wilds, from all such travellers we hear glowing accounts of the magnificence of the surrounding scenery, and the vastness of the dense, primeval forest which clothe its banks. The Indians in their harmonious language, named this beautiful stream, the Kitche-sippi or Great River, and when we contemplate the mighty cataracts, and sleeping lakes, the foaming torrents and furious rapids, the gigantic cliffs and monster boulders which distinguish its rapid journey towards the sea, we cannot but be struck with the appropriateness of such an appellation. The other name, Ottawa, is also Indian in its origin, and is pronounced Ot-taw-wah; the word signifies, the “human ear” but in what consists its appropriateness as applied to either river or city, is a mystery which has never yet been solved. Probably some mighty chief, of the ancient tribe of Indians who dwelt in this region, was so named as a compliment to his excellent oral qualifications and bequeathed his name, not only to his descendants, but also to the river in whose waters they fished, and upon whose banks they raised their wigwams. This tribe, the Ottawas, were driven from their hunting and fishing grounds in the Ottawa valley by another tribe, the Iroquois, and retired to the district bordering on Lake Huron, and to this day a few descendants of the once numerous and powerful tribe, are still living on Great Manitoulin Island. The valley of the Ottawa, i. e., that portion of country which is drained by the Grand River and its tributaries contains an area of about 80,000 square miles, most of it good land, capable of improvement when brought under cultivation, and producing in its wild state some of the finest and most valuable timber in the world. Although this region furnishes so large a portion of our Export trade and contains some of the grandest and most picturesque scenery on this continent, it is but little known to Canadians, and still less to English people, with the exception of those immediately connected with the lumber business. Few, save the hardy raftsmen, steering the fallen kings of the forest to the distant markets of the old world, and the adventurous trappers in search of precious fur-bearing animals, have ever seen the full magnificence of Nature's charms in this untrodden region. This beautiful river then, whose course to the sea, or rather to its confluence with the St. Lawrence, we wish to describe to an indulgent reader, is called indifferently either the Ottawa or the Grand River, and is supposed to take its rise in some lake or lakes, situated about the forty-ninth degree of North Latitude, and seventy-sixth of West Longitude. During the first three hundred miles of its course it receives many tributaries and expands into large lakes only two of

# NEW BRUNSWICK FILE WORKS.

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ALL KINDS OF  
*FILES and RASPS*  
RE-CUT TO ORDER.

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E. C. SPINLOW,  
138 Union Street,  
ST. JOHN, N. B.

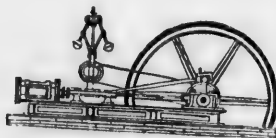
### THOMAS NORTHEY.

The machine works of Mr. Thomas Northey are situated at the corner of Wellington and King William Streets, Hamilton, Ont. They were established in 1848, and Mr. Northey, claims the honour of turning out the first steam engine manufactured in the Province of Ontario. Nearly every kind of engines, boilers, pumps, &c., are manufactured by Mr. Northey, and he deserves great credit for the excellent work he turns out. The factory is built of stone, two storeys high, and occupies eighty feet by thirty on Wellington street and one hundred and twelve feet by forty on King William street, giving employment to about forty hands. The engines and boilers are sold throughout the Dominion.

which, however, have been surveyed, called respectively, the Grand Lake, and the Lake of Fifteen-portages; the forest solitudes which border on its banks, have been rarely invaded save by Indian hunters and a few wandering trappers belonging to the Hudson Bay Company, and are uninhabited save by deer and other wild animals. If Indian tradition may be credited, one of the numerous lakes into which the Ottawa expands in this wild region, is nearly equal in size to Lake Huron, but its waters have never been navigated by white men. About three hundred miles from its source the Ottawa becomes better known to us, having been explored so far by Government surveyors and here it expands into a long and narrow lake bearing the Indian appellation of Temiscamingue. This lake presents more than one hundred and twenty miles of unbroken navigation and receives the drainage of a region containing an area of upwards of 30,000 square miles. Amongst the chief rivers which flow into this great basin, may be mentioned the Blanche which enters the lake at its northern extremity, being navigable for more than sixty miles beyond, and draining a level country with very good land; the Nippawa which flows from a large lake to the eastward; the Montreal and the Otter-tail which flow from a north-westerly direction and communicate also with Lake Temiscamingue which in its turn is united to Lake Nipissing by Sturgeon River; and the Quina which sweeps from the northeast where its tributaries intermingle with those of the St. Maurice and the Saguenay. The scenery on the shores of this great lake is exceedingly varied, in some places the country being level as far as the eye can reach and well suited to agricultural purposes, whilst in other parts it is rugged and barren, rising abruptly from the water in vast granitic cliffs. The region around Lake Temiscamingue, and on the borders of the numerous rivers which flow into it on either side, abounds in the red and white pine timber so valuable to the lumbermen, many of whom have already established themselves here, and as their numbers increase, when the best lumber has been removed from the country lower down, it is probable that the agricultural districts situated at the upper and lower ends of the Lake, will

be brought under cultivation to supply them with the necessities of life. Settlers and colonization invariably follow in the wake of the lumbermen, who may indeed be styled the pioneers of civilization and development. We must not forget to make particular mention of the River Keepawa which here flows into the Ottawa on its lower shore; it proceeds from a large lake of the same name, is remarkably deep and over three hundred feet wide, and empties itself into the Ottawa over a series of cascades 110 feet in height, but so noiselessly that at the distance of half a mile from its mouth, nothing is heard of the roar which might have been expected from the fall of so large a body of water. After leaving Lake Temiscamingue we descend the Long Sault Rapid, which is about six miles in length with a fall of forty-eight feet, and enter another beautiful expansion of the Ottawa called the Seven League Lake, into which the small river Antony empties itself on the south side. This lake is about seventeen miles long, and is followed by two formidable rapids called respectively, Les Montagnes, and Les Erables. Immediately below the last named rapid the Ottawa receives on its north shore the waters of the river Notawisi which pours itself over a fall fifty feet in height, with a body of water nearly equal to that which forms the famous Montmorenci Falls below Quebec. After passing another rapid called the Cave or Cellar, the Ottawa receives the river Mattawan which has a course of about forty miles from a westerly direction, and is divided by only a short portage of three fourths of a mile from Lake Nipissing. The voyageurs and trappers of the Hudson's Bay Company made use of this route to the far West, ascending the Mattawan to its source, thence by portage to Lake Nipissing, crossing which they entered French River, which after a course of fifty five miles dropped them into Lake Huron; the distance of this route between the Ottawa and Lake Huron being about 120 miles. Below the mouth of the Mattawan the Ottawa flows in a narrow and rocky bed with strong currents and frequent rapids and falls; the most remarkable of these is called the Rocher Capitaine, where the River descends over three distinct falls; the central rock is forty feet in height and the velocity of the current, impetuously bounding over the dark masses of rugged rocks which impede its progress, renders the scene strikingly grand and picturesque. Below the Rocher Capitaine falls, the Ottawa receives two tributaries on its northern, and two on its southern shore, of which the River Du Moine on the north is the largest and most important, and we then arrive at the tremendous rapids les Deux Joachims. These rapids have a descent of about twenty feet and have been made navigable for timber by extensive slides and dams erected by the Government at very considerable expense. Close beside these rapids on a point which projects into the river and commands one of the finest river views in Canada is situated a most comfortable Hotel; and here the first sign of approaching civilization is found in a regular distribution of the

NORTHEY'S



Steam Engine Works,

COR. WELLINGTON & KING WILLIAM STS.,

HAMILTON, ONT.

T. NORTHEY,

MANUFACTURER OF

PORTABLE AND STATIONARY STEAM ENGINES,  
BOILERS.

Steam Pumps, Boiler Feeders, &c., &c.



### NAPANEE PAPER MILLS.

This Company was established in 1873. The offices are situated in the town of Napanee, Ont., and are built of brick, very neatly arranged. The Company's mills are situated at Napanee Mills, Ont., about two miles from the town of Napanee. The mill buildings are of stone, two and three storeys in height, one 104 x 54, one 100 x 50, one 136 x 38, in all, mills, yards, and storehouses cover fifteen acres, turning out over fifteen tons of paper a week. This Company makes printing, manilla, and book paper a specialty, using seventy horse steam power and fifty horse water power, employing fifty hands. Alexander Smith, Esq., President; John R. Scott, Managing Director; W. F. Hall, Business Manager.

mails. The river below the rapids is about a mile in width, and runs so perfectly straight that a ball projected with sufficient force would follow the water for a distance of twenty-five miles. This splendid reach of the Ottawa is called Deep River, because rafts with 100 fathoms of chain, have been unable to find anchorage in it, and much resembles the Saguenay in its scenery. The southern shore has high, but sloping and well wooded banks, while on the northern a bold and lofty mountain chain rises 400 to 800 feet above the water; one remarkable rock called the Oiseaux, towers bare and perpendicular to a height of nearly eight hundred feet and gives back a magnificent echo to the lively boat song of the Canadian *voyageur*. The topmost peak of this rock is called by the Indians, the Squaw's Leap, and tradition tells of a despairing maiden who threw herself from it, hoping thus to rejoin more speedily the object of her love in the happy hunting grounds of the Indian spirit-land. The lower end of that part of the Ottawa, called Deep River bears the name of Allumette Lake. It receives the waters of the Petewawa, one of the largest and most important tributaries of the Ottawa, being one hundred and forty miles in length and draining an area of two thousand two hundred square miles, all which country is productive of very fine and valuable timber. The waters of Allumette Lake are studded with numerous beautifully wooded islands, and the scenery much resembles though it surpasses in beauty that of the St. Lawrence at the well known Thousand Islands. At the lower end of this Lake near the mouth of a small stream called Indian River is situated, on the Ontario side, the thriving town of Pembroke which is yearly growing in size and importance, owing to its extensive trade with the lumbermen of the surrounding region. It is sometimes called the capital of the Upper Ottawa and is an active, busy little town.

After passing the short rapid of Allumette and the island of that name which is fourteen miles long and eight wide, we arrive at the beautiful expansion of the Ottawa called Lake Coulouge altogether a navigable reach of water fifty miles in length. On the northern

shore of the Lake, the mountains rise to a height of 1,500 feet and the scenery is very varied and beautiful. Two important tributaries here enter the Ottawa on the north side, viz: the Black River which is one hundred and thirty miles long, and nine miles lower down the Coulouge which is one hundred and sixty miles in length, both these rivers pass through a district producing the finest pine timber. At the foot of Lake Coulouge the channel is again divided by Calumet Island, which is about twenty-five miles long. The principal rapids on the northern side of the island are called the Grand Calumet, the Derange and the Sables, whilst those on the southern side bear the name of the Rocher Fendu, they are about seven miles in length, but a portage road and slides for timber have been constructed at great expense and in a very substantial manner. From the head of the Calumet falls to the pretty village of Portage du Fort the river falls over a hundred feet and the scenery around is exceedingly beautiful. The Rocher Fendu Lake, where the two channels which form the Islands unite, is surrounded by lofty banks and beautified by numerous thickly wooded islands; here there is scarcely a ripple on the surface of the water, and its quiet, picturesque beauty presents an admirable contrast to its impetuosity up above, where after passing over the Calumet falls with a furious leap, it descends a series of rocky terraces and dashes itself against the granite boulders which impede its progress until its waters are converted into milky white foam. At Portage du Fort there are some fine marble quarries, and collectors can obtain some beautiful specimens of mica combined with feldspar and quartz, and lovely pink and white statuary marbles. About six miles below Portage du Fort we come to a series of rapids called les Chenaux; the river is here studded with small wooded islands between which the water rushes with great impetuosity, but excepting in very high water, when some of the eddies become perfect whirlpools, these rapids are navigable for steamers. Passing les Chenaux, we arrive at Lake les Chats, a beautiful expanse of water about sixteen miles long and varying from one to four miles in width. A number of small islands are scattered over its surface and as the lake is perfectly straight the placid beauty of the scene is presented to the eye in uninterrupted loveliness. The origin of the curious name of this lake and the rapids which succeed it has not been determined with certainty, some think that the Indians named it after the wild cat which was so frequently found in the neighbouring forests, and that the early French settlers merely translated into their own language, its Indian appellation: others suppose that the name is owing to a fanciful resemblance between the rapids and the extended claws of a cat, whilst others again think it was named after the blossom of a shrub growing on its banks which is somewhat like the "catkin" of the old world. Among such various opinions our readers must judge for



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THE  
**NAPANEE MILLS**  
**Paper Manufacturing Co.**

N. SMITH, Esq., President; J. R. SCOTT, Managing Director; H. F. HALL, Business Manager.

MANUFACTURERS OF  
*Printing, News, and Book*  
*Paper.*

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Printing Paper of ordinary weights and sizes always  
in stock, of the best quality, colour, and finish.

Special orders filled on short notice. and satisfaction  
guaranteed.

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**Mills at Napanee Mills, Ont.**

**Head Office, Napanee, Ont.**

# DOMINION FILE WORKS.

The firm of Messrs. G. Outram & Son, was established in 1871. The office and factory, are situated at St. Gabriel Locks, near the John McDougall Machine Shops, Montreal. This firm does a good business from New Brunswick to Lake Huron. Water power is used from the Lachine Canal.

themselves the most probable derivation of the name les Chats. Three large tributaries swell the waters of the Ottawa at Lake les Chats flowing from the Ontario side, viz. the Bonne Chere which is about one hundred and ten miles long, the Madawaska two hundred and ten miles in length and the Mississippi over one hundred miles long, and each of them draining a vast area of excellent timber-producing land. At the mouth of the Madawaska is situated the important village of Arnprior, where there are extensive saw mills and also marble quarries. Immediately below the Lake occur the remarkable rapids of the same name. The river here is not far from a mile wide, and its course being barred by a huge ledge of limestone nearly three miles in extent, it pours its vast volume of water over the obstruction from a height of fifty feet by a series of falls; in high water as many as thirty-three distinct falls may be counted, separated from one another by islands. Over each of these cataracts falls a body of water equal to an ordinary sized river and their picturesque beauty would attract crowds of delighted visitors had they occurred in any country of the old world. The rocks between the cascades are clothed with trees whose branches and foliage overhanging the water add greatly to the beauty of the scene. Tourists are conveyed past the interruption of navigation produced by these falls by a horse railroad, of rather singular construction and quite one of the curiosities of the Ottawa. It is three miles long and its commencement at Lake Chats, being fifty feet higher than its terminus at Lake Chaudiere or Deschene the latter is rather elevated and has to be approached by a lotty staircase. The rails are laid on piles of squared trees and as the ground is frequently very uneven, being sometimes a swamp and sometimes a ridge of granite, it has been necessary at times to pile the timber over twenty-five feet from the ground to maintain the necessary level of the rails. There is no fence or railing of any kind at the side, and the whole seems rather a dangerous route to an inexperienced passenger, but we believe no accident has ever occurred though it has now been constructed for a number of years. After passing the Chats Rapids the Ottawa receives on the South side, the waters of a small stream called the Carp, and almost directly opposite on the North side those of the Quio, also a small river, but one which drains a country producing some of the most

valuable white pine timber in the world. We now arrive at Lake Deschene or Chaudiere, a lovely expanse of water about thirty miles long and from one to two in breadth. The land on either bank is remarkably fine and, in general, well settled and cultivated, and as we approach Ottawa we meet with fine farms, and handsome houses and grounds in abundance. The pretty town of Aylmer is situated at the lower end of the lake, about eight miles from Ottawa on the North side, and just above the succession of rapids which precede the grand falls of the Chaudiere. These rapids continue for about five miles, and have altogether a descent of about sixty feet, and are immediately followed by the magnificent falls which form one of the loveliest views on the Ottawa. These falls are second only to Niagara in height and extent, the ledge of rock over which they fall being only sixty feet in height, while the river above them is five hundred yards wide; but the volume of water is nearly equal to that of Niagara, and the surrounding scenery, with its magnificent view of the Parliament Buildings of Canada, is far more varied and beautiful. Immediately below the falls on the North side of the river is the village of Hull, the great lumbering depot of the Ottawa. Opposite Hull, on the south bank of the river, stands the City of Ottawa, whose site 30 years ago was an unprofitable farm; now the political metropolis of Canada; a full description of which is given in another part of this work. At New Edinburgh, a suburb of Ottawa, lying in an easterly direction, the river receives the waters of the Rideau, a large stream having a course of one hundred and sixteen miles; its mouth is divided into two distinct falls by an island; the river falls into the Ottawa over a perpendicular rock of blue limestone, a distance of fifty feet, and from the peculiarity of its fall, which is supposed to resemble a watery curtain, it derives its French name of Rideau. About a mile lower down on the north side is the mouth of the Gatineau, the largest of the tributaries of the Ottawa. It has been surveyed for over three hundred miles from its junction, and there is a large river supposed to proceed from some large inland lake in the unknown forests of the North. The Gatineau drains a vast area of fine timber-producing land, and on its banks have been erected some of the largest saw mills in Canada. A few miles below the mouth of the Gatineau the waters of a small river, La Blanche, are discharged into the Ottawa, and soon afterwards those of the river Aux Lievres, which has a course of about two hundred and sixty miles. Next comes the mouth of the North Nation, and nearly opposite, on the Ontario side, that of the South Nation, each of which is about one hundred miles long. Below the confluence of the North Nation the Ottawa receives the river Rouge, which has a length of about ninety miles, and below that again the river Du Nord, which is about one hundred and sixty miles long. After these two rivers the Ottawa receives no other large tributary until close to the junction of its southern branch with the St. Lawrence. Below Montreal the river L'Assomption

**G. OUTRAM & SON,**

**Dominion File Works,**

**St. Gabriel Locks, - - - MONTREAL,**

Manufacturers of all kinds of

**FILES AND RASPS.**

**Our Files are all made from English Steel**

**and Fully Guaranteed.**

**Old Files Re-Cut and made Equal to New,**

**AT MUCH LESS THAN COST.**

**We also make a Specialty of Lace**

**Leather for Belts,**

**Which we Guarantee second to none.**

**GEO. OUTRAM.**

**FRED. OUTRAM.**

WILLIAM OSBORNE.

This malt house has just been built and is a fine three story stone building, fronting 160 feet on Boston Street, Hamilton, by sixty feet deep, employing 13 hands. Mr. Osborne has spared no expense in making this one of the most substantial buildings of the kind in Ontario, and hopes by strict attention to business to merit a share of public patronage.

flows into it after a course of one hundred and thirty miles. At its mouth the Ottawa forms the island upon which stands the city of Montreal and the rush and volume of its waters is so great that it drives its larger but quieter sister the St. Lawrence, completely upon the south bank, while the difference between its placid blue water and the dark and turbulent tide of the Ottawa is clearly discernible. The Island of Montreal and Isle Jesus divide the mouth of the Ottawa into three branches; in two of these the channel is interrupted by rapids, but by the north branch the lumber of the Ottawa region finds its way to the St. Lawrence and finally Quebec. The waters of this grand river are not merged in those of the St. Lawrence until near Bout de l'Isle below Montreal Island, one hundred and thirty miles from the city of Ottawa, and about six hundred from its source. From Ottawa to Montreal the river with one interruption is navigable for steamers, and the trip, in its varied beauty of river, lake and forest scenery, is unrivalled in Canada or on this continent. In the passage from Ottawa to Grenville, a distance of fifty-eight miles, the views are those belonging to a noble river passing through a richly wooded country, where dense forests, smiling farms, and busy villages succeed one another on its banks; at Grenville commence the Longue Sault Rapids, and the interruption of navigation is overcome for the tourist, by a comfortable railroad twelve miles long to Carillon, where he again embarks and almost immediately glides into the beautiful Lake of two Mountains so famous for the loveliness of its scenery; then passing the rapids of Ste. Anne by a short canal with one lock he arrives at Lake St. Louis and the St. Lawrence River, having spent exactly one day in the transit between the two cities. In this short sketch of the course of the Ottawa many of its smaller tributaries have been omitted, but enough have been mentioned to show the vast extent of country comprehended in the broad valley of the Ottawa. The river, as we have shown, like the St. Lawrence, consists of a series of wide expanses or lakes connected together by rapids of greater or less length, and its prominent characteristic is its great volume and the impetuosity of its course. In ascending it we meet with every variety of river and lake scenery and the tourist is never fatigued, for the constant variety makes

every view, from rugged grandeur to placid loveliness, appear novel and delightful. Having given this general view of the Ottawa river and its surrounding country, we will strive to bring before our readers an interesting sketch of the course of a lumber raft, from its formation until its final departure at Quebec for the distant markets of the Old World. As the principal timber producing districts of Canada are in the possession of Government, the first step of the manufacturer is to obtain what is called a timber berth or limit. These are sold by auction to the highest bidder, the price ranging generally from one dollar to one dollar and a half per square mile. Theoretically the limit is ten miles square or 100 miles in extent, but owing to the topographical features of the country they are of all sizes from 24 square miles and upwards. The limit holder becomes a yearly tenant of the Government at a fixed rent, and in addition pays a duty of one halfpenny per cubic foot of square timber taken out, and of 5d on each standard log of 12 feet long and 21 inches in diameter. Having secured the limit the next step is to dispatch a party of experienced scouts, generally Indians or Half-breeds, to examine the land and seek out groves of valuable timber. The skill of these self taught surveyors is sometimes very remarkable, they will explore the length and the breadth of the unknown territory and report upon the value of its timber the situation and capabilities of its streams for floating out timber and the facilities for hauling and transportation. They often sketch the surface of the country, showing the position of its streams and lakes, its groves of timber and its mountainous or level appearance, with a skill and accuracy which is truly marvellous. Having with the aid of these scouts selected a desirable grove, a shanty is constructed of the simplest description, being generally built of rough logs with a raised hearth in the centre for a fireplace, and an opening in the roof for a chimney. A double row of berths all round serves for sleeping accommodation, while from a wooden crane over the perpetual fire swings the huge kettle, which with the accompanying pot serves all the purposes of cookery. The domestic economy is conducted upon strict temperance principles, tea is the constant beverage of the lumbermen and they consume it in quantities, and of a strength which would effectually destroy their nerves if they possessed those delicate organs. In point of fact the beverage of the woodman ought to be called *tea soup* it being an infusion entirely different from that of our city drawing rooms. They place a couple of handfuls of tea in a kettle of cold water and hang it over the fire, till it boils and attains a strength and fullness of flavor only palatable to throats which admire body in the fluids they imbibe. Many of these hardy men drink a pound of tea per week, and some of them double that quantity of the Chinese shrub, and without feeling any ill effects either from that, or the salt pork which is the other staple

WM. OSBORNE,

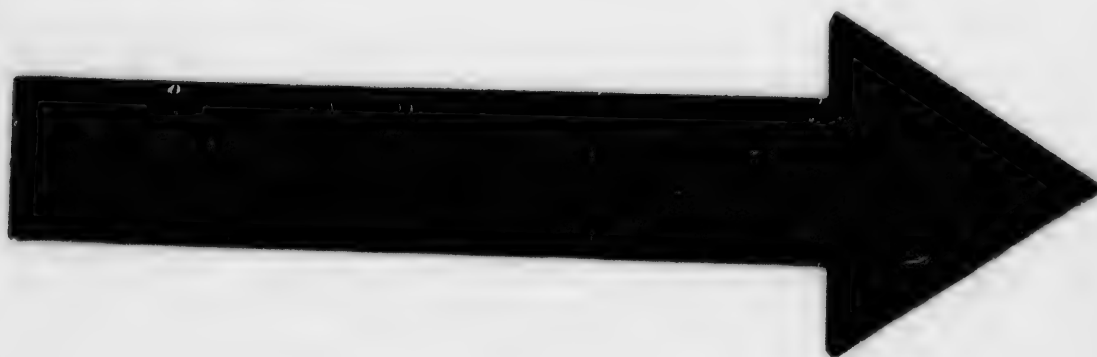
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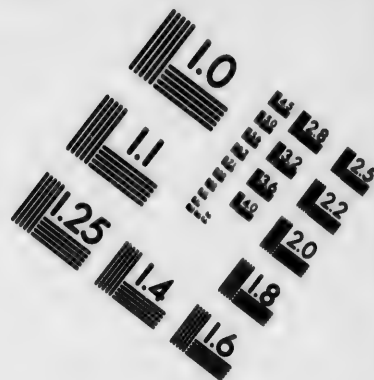
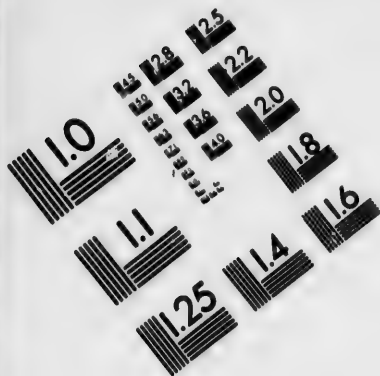
*DEALER IN GRAIN,*

BARTON STREET,

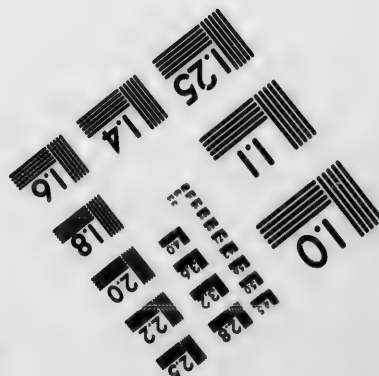
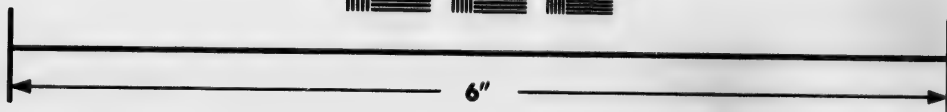
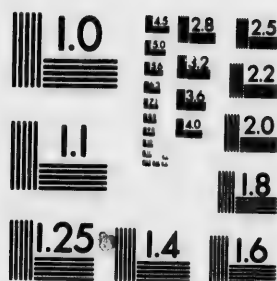
HAMILTON, ONTARIO.







# IMAGE EVALUATION TEST TARGET (MT-3)



# Photographic Sciences Corporation

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#### M. O'DONOVAN.

Carriage Manufacturer, was established in 1859. The factory and office are situated on Brock street, Whitby, Ontario. The show room is fronting on Brock street, and is built of frame, three storeys in height, 26 x 100. The first floor is used for offices and show room. Here is to be seen all kinds and styles of the finest Carriages, Phaetons, Buggies that can be found in the Dominion. In the shipping department we noticed Carriages, Phaetons, and Buggies marked ready for shipment to Montreal, Toronto and different other places in the Dominion. The second floor is used as paint shop, trimming shop, &c. The third floor is used as gear shop, stock room, &c. The blacksmith shop is in the rear of the show room and is one story in height, 40 x 30. The wood shops and lumber sheds are very neatly arranged, two stories in height, 27 x 150. The buildings in all cover about one acre of ground. From twenty-five to thirty men find employment in this enterprising establishment.

article of diet. Perhaps the strong tea counteracts the fat pork, and *vice versa*. The stores of the lumbermen are usually carried up to their forest shanty late in the autumn, and all preparations are made to commence the work of felling the giants of the forest. White pine is generally found on undulating ground, mixed with other timber, and has to be selected with considerable care,—none but a lumberman being able to detect sound from unsound trees. Red pine, on the contrary, grows in un-mixed groves, and among thousands of trees there will not be found one diseased trunk. Around you stretches a vast sandy plain from which thousands of smooth straight trees spring to a height of forty or fifty feet without branch or leaf, then spreading out into the magnificent evergreen foliage, which distinguishes what is commonly called the Norway pine. In connection with the lumbermen there usually works a cheaper class of men, who cut roads and haul the levelled trees to the stream or the main road from the forest. Having worked in the grove of trees all through the winter, at cutting down and then squaring the selected trees, the lumbermen next proceed to draw them to the nearest branch or tributary of the Ottawa, and great activity is displayed in getting ready for the start or drive when the ice breaks up, usually about March or April. If the stream is not large enough for *cribs*, i.e. small rafts, containing about twenty sticks of square timber fastened between two round logs called floats, it is drifted down separately, the lumbermen keeping up with it either along shore or in canoes, and keeping the stragglers well together with long poles. When the larger stream is reached cribs are formed, the round logs at the sides and heavy transverse pieces on the top keeping the enclosed square timber from injury, and the stream carries it down with its gang of men and provisions to the broad bosom of

the Ottawa. This river from Lake Temiscamingue to its mouth, is navigable for cribs and rafts of timber, though it is sometimes necessary at rapids or falls where no slides are yet constructed, to break up the crib and remake it after the separate sticks have floated over the falls. A boom is usually thrown across the stream below the rapids to prevent the timber floating down too far. In place where the width of the river will admit it, many cribs are fastened together forming a raft, on board which with plenty of provisions, sail set and a fair wind, the lumberman enjoys some rest after his previous toils. If the season has been favourable and he has a prospect of speedy payment for his labour by a good market of his timber in Quebec, this part of his journey must be a very pleasant one. The life of a lumberman is full of adventure and peril, but they are a hardy, vigorous race, and seem to enjoy the most robust health and care little for the fatigues they undergo. The trade in timber is yearly becoming more extensive and is annually increasing—the lumbermen are yearly advancing farther and farther up the Ottawa and its tributaries, in search of the timber which has grown for centuries to maturity on their banks; and every year many of these men settle on the lands which they have observed in their wanderings, to be favourable for agricultural purposes. Thus the country of the Upper Ottawa is becoming rapidly opened up for settlement and civilization, following the adventurous footsteps of the lumber merchant and his sturdy workman. Many improvements have been made of late years by the Government in the navigation of the Ottawa and its tributaries, by the construction of slides and booms to facilitate the passage of timber past the frequent rapids and falls.

#### JOURNALISM, ITS INCEPTION, RISE, AND PROGRESS.

The desire to know what is transpiring around us, to be acquainted with the events occurring in our own or other countries, is as natural to man merging into a state of civilization, or actually civilized, as it is for the apple to fall to the ground, instead of flying off into illimitable space when the world is upside down, as it would do were it not for the attraction of gravitation. To this feeling of curiosity we are doubtless indebted for the introduction of newspapers, and their rapid growth to power and importance in the face frequently of strong opposition and much tyrannical oppression. Newspapers have grown to be a necessity almost as much as food and drink, and a country which newspapers never reached would be almost unendurable; yet, two hundred years ago there was not such a thing known, and even half a century ago few papers were published, and the number of readers was trifling compared to the tens of thousands of papers to-day and their hundreds of millions of readers.

M. O'DONOVAN,

PRACTICAL

Carriage Builder,



BROCK STREET,

WHITBY, - - - Ontario.

Manufacturer of

FINE BUGGIES, CUTTERS and CARRIAGES.

The oldest newspaper in the world is the Chinese official journal, which is said to have been in existence for upwards of 2,000 years; but this can scarcely be called a newspaper, in the proper acceptation of the word, as it simply contained the edicts of the Emperor. It is still in existence, and is known as the *Gazette of Peking*. It has changed somewhat in style, and now consists of twenty or forty small pages, bound in a yellow cover, and contains some items of news and a few advertisements; but is a poor affair, and is published under the direction of the Emperor, so that it does not pretend to that most important characteristic in a newspaper, Independence. This is said to be the only paper published in China in the Chinese language, and it does seem somewhat peculiar that a people who discovered the art of printing, as well from moveable type as from blocks, should have no newspapers and no journalists. Next in chronological order of incipient newspapers would come the *Acta Diurnum*, of the Romans, which consisted of accounts of the laws passed, deaths, births, and other news of Rome, and were placed in some conspicuous place for the people to read. To Venice, "The Queen of the Adriatic," at that time the leading commercial port of the world, belongs the credit of having the first newspaper.

In 1536 it began to be the fashion to have written sheets containing military and commercial news read at the street corners. A charge of one *gazetta*, a small coin now out of existence, was made and hence originated the name "Gazette," which was applied to all early newspapers. The fashion soon spread to France and England, the name Gazette being generally retained. A file of the Venice *Gazette* in manuscript for 60 years is in the library at Florence. The Government would not allow it to be printed and it continued to be issued in manuscript long after the papers of other countries were printed. The first regular newspaper in France was the *Gazette de France*, published by Dr. Renandot in 1631, and which is still in existence. This paper was greatly patronized by Richelieu, and it is said that at least one article which appeared in it was written by Louis XIII.

It has been generally claimed that the first paper was published in England in the days of "good Queen Bess," to chronicle the defeat of the Spanish Armada; but the only such paper to be found is *The English Mercurie*, bearing date 1588, and on file in the British Museum; but this is known to have been a forgery committed about 1766, the paper on which the manuscript is written bearing that date. In 1622, Nathaniel Butler and others published *The Weekly News from Italy, Germany, &c.*, and this may be taken as probably the first newspaper. During the civil war a number of little sheets appeared, to one of which belongs the honor of having given the first Parliamentary report. The *Public Intelligencer*, which was published by Roger L'Estrange in 1663, was the first publication that reached anything like the dignity of a newspaper; it was published for about three

years and was then incorporated with the *Mercurius Politicus* and published semi-weekly under the style of the *London Gazette*, the first number of which was issued 6th February, 1666, and is still in existence. It is the official organ of the Government, and under direct Government control, the editor being appointed by the Ministry of the day. The *Flying Post*, published in London, 1st April, 1697, inaugurated a new style of newsletter, that of only printing on two pages and leaving the other two blank for the purchaser to write what he pleased on. The publisher in his announcement says: "If any gentleman has a mind to oblige his country friend or correspondent with this account of public affairs, he can have it for two pence on a sheet of fine paper, half of which being left blank, he may thereon write his own affairs, or the material news of the day."

Newspapers received a great impetus during the reign of Queen Anne, in which time the first daily newspaper, *The Daily Courant*, made its appearance, 1703. It was in Queen Anne's reign that the first paper was printed in America, *The News Letter*, published weekly at Boston. This paper adopted the style of the English news letters, and was only printed on two pages, leaving the others blank. The rage for newspapers rapidly grew, and their number, of course, increased in proportion. None of the productions, however, were of much merit, except De Foe's *Review* (1704-13) and Swift's *Examiner* (1710). The papers were frequently personal and scandalous, and often obnoxious to the government, which tried to suppress the growing power, but opposition only seemed to give it strength, and although prosecutions were frequent, the press obstinately refused to be killed. At last some one conceived the idea of taxing newspapers—it is not known who the originator—and a duty of a half-penny on papers of a half sheet or less, and a penny on such as ranged from half a sheet to a sheet was imposed in the tenth year of Queen Anne's reign, and went into effect 19th July, 1712. The following bit of sarcasm from Swift's *Journal to Stella*, on the subject, is too good to lose:—"Do you know that Grub Street is dead and gone last week? No more ghosts or murders now for love or money. I plied it close the last fortnight, and published at least seven papers of my own, besides some of other people's; but now every single half-sheet pays a half penny to the Queen . . . Have you seen the red stamp the papers are marked with? Methinks the stamping is worth a halfpenny."

Despite the tax and the constant persecution of the press, newspapers continued to increase and also to improve in quality. The reign of George the Third was specially noticeable for press persecutions, and editors, publishers and printers formed one of the staples of the jail population. One of the greatest causes of complaint was reporting the debates in Parliament, the members declaring it a breach of privilege to do so. The *London Evening Post* was the first paper to offend in this way. Its publisher collected some particulars of the debate on

# First Prize Cone Pumps.

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*Peterborough Central Exhibition, 1875. Toronto  
District Exhibition, 1875.*

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## HENRY OWENS,

MANUFACTURER OF ALL KINDS OF

## Well and Cistern Pumps,

AND THE

## FIRST PRIZE PATENT CONE PUMPS

### A SPECIALTY.

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These Cone Pumps have also taken two First Prizes, and the Diploma of the Society at the Provincial Exhibition in Toronto, in 1874.

N.B.—As these Pumps are Patented, I warn the Public to BEWARE OF IMITATIONS.

## HENRY OWENS,

MANUFACTURER,

Simcoe and Water Streets, PETERBOROUGH.



#### PORTER AND SAVAGE.

The large leather belting establishment of Messrs. Porter and Savage is situated at 436 Visitation street, Montreal, and furnishes employment to over fifty hands. The firm commenced business in 1869, and by manufacturing only first-class articles and careful attention to business, have been so successful that they now turn out about one hundred thousand dollars of work a year. They also do a large business in saddlery and harness, and their goods are widely and favourably known throughout the Dominion.

the Middlesex election from members of the house and published them. This was quickly followed by the *St. James Chronicle*, which employed a reporter specially to go about to coffee houses and pick up information from members, for it must be remembered that reporters were not admitted to the house in those days. This gentleman, whose name is unfortunately lost to fame, is the first of the now numerous race of "interviewers." These publications caused a perfect storm in the house, and on the 12th March, 1771, Miller, the publisher of the *Post*, was commanded to appear before the bar of the House. Miller refused to appear and the Deputy Sergeant-at-Arms was sent to bring him; but it was the old story of catching a Tartar; instead of capturing Miller, Miller captured the Deputy and took him before the Lord Mayor, within whose jurisdiction Miller lived, charging him with assault. The Lord Mayor was highly indignant that any one should attempt to interfere with his authority, and promptly committed the deputy, holding that the Speaker's warrant was of no account in the city.

At this the house was thrown into a state of great indignation and after a stormy debate the Lord Mayor and two Aldermen who had signed the warrant with him were arrested and imprisoned in the Tower, where they remained for three months until Parliament adjourned. This may be said to have finished the fight between the Parliament and the Press the latter winning for the conduct of the house brought down such a storm of indignation from the people that no further effort to interfere with the right of the press to report was made. Reporters were tacitly admitted to the gallery, and not very long afterwards special accommodation was provided for them. The fight between the Press and the Government of the day had yet to come and it was long and bitter, but resulted in another victory for the press. The *Public Advertiser* was the leading paper at that time, and in it appeared the now world renowned letters of Junius. These appeared from 1769 to 1771 and nearly doubled the sale of the paper. The *Morning Chronicle*, the paper on which Charles Dickens was reporter forty years ago, and where his earliest efforts first appeared, was commenced in 1769 and soon took the lead in Parliamentary reports on ac-

count of the wonderful power of its reporter and editor, William Woodfall, better known as "Memory Woodfall," who it is said, by gaining admission to the strangers' gallery could take a whole debate without making a note—a thing which would of course not have been permitted at that time. In these days of Parliamentary *Hansards* and "speaking for the press," one could scarcely realize the position of the English House of Commons less than a century ago. The stamp tax had meanwhile continued to grow; in 1750 it was made one penny and was increased from time to time until in 1815 it reached the exorbitant amount of fourpence (eight cents) on each paper, a tax which remained in force until September, 1836, when it was reduced to one penny and continued at that rate until its abolition in 1855.

The abolition of the stamp tax and the subsequent removal of duty on paper in 1861 fairly revolutionized journalism and gave birth to a class of papers hitherto unknown, the penny and halfpenny press. In 1854 the total average circulation of the daily papers printed in London was 77,914 according to the stamp returns, of which the *Times* published 51,648, being nearly double the circulation of all its contemporaries put together. The effort of twenty years of freedom has been wonderful. The *Times* no longer heads the list in circulation, the *Telegraph*, *Echo* and others having more than twice or three times the circulation although the "Thunderer" still holds its proud position as the leading newspaper in the world.

The *Times* was first published 18th January, 1785, under the title of *The London Universal Register*, printed logographically, and was owned by Mr. John Walter, grandfather of the present proprietor. The logographic process was a combination of words instead of letters, and after a trial of over two years was found to be a failure. On January 1st, 1788, the name was changed to the *Times*. This paper deserves a much more lengthy and elaborate notice than we can give it here, as it is to the pluck, energy and enterprise of Mr. John Walter, son of the founder, who succeeded to the paper in 1803, that the press of England is mainly indebted for its freedom. His long fight with, and final victory over, the Pitt Ministry has become a matter of history, and with the removal of supervision of the Post Office and suppression of letters, was swept away one of the last great barriers to the progress of the press. The fight was simply this: Mr. Walter refused to support the Pitt Ministry and exposed some of the acts of Lord Melville; for this he was punished by having the Customs printing, which he had done for eighteen years, taken from him, all Government advertisements were removed from the *Times*, and letters and papers for that journal were either suppressed altogether, or held in the Post Office until too late for publication.

Walter bore all this patiently, instituted his own couriers, made arrangements for obtaining news through

# PORTER & SAVAGE,

*Manufacturers of*

Double Stretched Cemented Sewed and Rivited

*Oak Tanned Leather Belting,*

FIRE ENGINE HOSE,

*LACE LEATHER IN HIDES & STRINGS,*

**HARNESS AND ALL KINDS OF SADDLERY**

**AT WHOLESALE.**

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FACTORY AND OFFICE:

**436 VISITATION STREET,**

**MONTREAL.**

*SEND FOR PRICE LIST.*

• PAQUETTE & ROBERT,

Manufacturers of doors, sashes, blinds, architraves, house finish mouldings of all kinds. This firm was established 1870. Their office and warehouse is situated at 286 Craig street, opposite the cattle market, factory 18 to 22 Perthus street, Montreal. These are the finest three story brick buildings in Montreal, which are a credit to the firm. They do a business of from seventy-five to a hundred thousand dollars a year, employing seventy-five to one hundred hands, using fifty horse, steam-power.

friends, and obstinately refused to allow his paper to be controlled by Government. At last, driven to desperation, he published the whole disgraceful story of his persecution, of the blackmail to which he had been subjected by the Post-office, and of the offers made to him by the Ministry if he would support them. Again Public Opinion was aroused, and again the press was triumphant, It was at this time that the *Times* gained the name of "The Thunderer."

The first newspaper started in Canada was the *Gazette de Quebec*, which was printed by Brown and Gilmore, St. Louis street, Quebec, and the first number of which was published on the 24th of June, 1764. We have a *fac simile* on the first number, issued as a *souvenir* by the paper on completing its one hundredth birthday, and we find it is a four page, 9x13 sheet, having two columns, one English and the other French, on each page, and contains just two columns of foreign news and two advertisements of half a column each—one from the Collector of Customs, the other from John Baird, who seems to have dealt in everything from cambrics to frying pans—the remainder of the paper being taken up with a lengthy address from the printer. The paper was afterwards changed to an English paper and continued its existence up to three years ago, when its publication was stopped on the death of Mr. Middleton, one of the proprietors.

The establishment of a newspaper in Montreal, singular to say, is due to the occupation of the city by the American army during the revolution, and still more singular is the fact that Benjamin Franklin, the great American printer and statesman, was one of the men interested in the work which ultimately led to its establishment.

When General Arnold was in command of the troops here, during the winter of 1775-6, the American Congress sent three Commissioners—Benjamin Franklin, Samuel Chase and Charles Carroll—to Montreal to endeavour to conciliate the Canadians. These Commissioners were clothed with extraordinary powers, indeed with almost as much power as Congress itself possessed. A portion of their instructions ran as follows; "Chiefly, however, they are charged to convince, conciliate and win the Canadians by appeals to their reason and interest; in aid of which they are to take measures for establishing a newspaper to be conducted by a friend to Congress." The

Commissioners followed their instruction faithfully, brought with them a press—the first in Montreal—type, &c., and a French printer named Mesplets.

The party arrived at Montreal on the 29th April, 1776, but it is doubtful whether the Commissioners made any great efforts to establish a newspaper, as they soon found that their cause was hopeless, and Franklin left Montreal on the 11th of May. A number of addresses to the Canadians were printed and distributed, and these were doubtless the work of Mesplets. When the Americans left, Mesplets remained behind and established himself as a printer in "the Market Place," now Custom House square, taking a man named Berger as a partner. The partnership did not last very long, and in 1778 Mesplets published the first number of the *Gazette*, which was printed in both French and English. The *Gazette* is now the oldest paper in Canada, and we believe the third in age on this continent.

PURE AIR AND ITS IMPORTANT RELATIONS  
TO A HEALTHY VITALITY.

Food and air are the principle and essential elements which sustain human life; the one furnishing ailment wherewith to supply the waste of the system, and the latter to prepare and fit the blood for the purpose it fills in the animal economy. Both are equally essential to a well-being of the body, and the greatest vitality exists where they are furnished in purity and of proper character.

Nature has set up a defence for herself against food vitiated by age or made impure by decomposition or chemical change, by rendering it repulsive to the senses; and has also provided a means for ridding the stomach of offensive substances by action independent of the volition of man, and nature is prompt to admonish when improper food is used.

Against the insidious action of vitiated air nature's monitions are not so prompt; she has made no provision to admonish at the time when bad air is inhaled, and until the effects of its use have developed into disease, its results are not made known. Impurities in the air may be inhaled without being noticed at the time, which, if taken into the stomach, would be made known immediately. The slow and insidious development of diseases of the lungs and throat is of a character which nature is not prompt to furnish intelligence of, and oft-times not until disease has made great progress is its presence known at all.

The inhaling of bad atmosphere, or atmosphere vitiated or made impure by contact with deleterious substances, or atmosphere mingled with noxious gases, is one of the most productive sources of such interferences with nature's chemistry of the body; hence it becomes a matter of vital importance that we should understand fully the character of the atmosphere we breathe, and

# MANUFACTURE 286 RUE CRAIG,

(En face du Marche des Animaux,)

ET

**18 ET 22 RUE PERTHUIS, MONTREAL.**

PAQUETTE & ROBERT,

MANUFACTURIERS DE

**PORTES, CHASSIS, JALOUSIES,**

*Architraves, Moulures de tous Genres et toutes especes de travaux a la Piece.*

Manufactory 286 Craig Street,

(Facing the Cattle Market,)

AND

**18 & 20 PERTHUIS STREET, MONTREAL.**

PAQUETTE & ROBERT,

MANUFACTURERS OF

**DOORS, SASHES, BLINDS, ARCHITRAVES**

*House Finish, Moulding of all kinds, &c., and all kinds of Job Work.*

## PALMERTON AND BULLOCK.

The Gananoque Rivet works of Messrs. Palmerton & Bullock were established in 1860, and are situated in the village of Gananoque, Ont., at the confluence of the Gananoque and St. Lawrence rivers. The works are very extensive, covering over one acre of ground and giving employment to about 25 men, turning out about half a ton of rivets a day, and using up nearly two hundred tons of wire a year.

quite as much so, as that we should know the quality of the food we eat.

Too much attention cannot be paid to this important matter by heads of families. Independent of the considerations of comfort, it becomes a duty of our kind that we endeavor to promote, in the physical condition of those about us, a healthy and vigorous vitality.

Let any one visit the haunts of the poor, living in badly ventilated tenement houses, and compare the offspring of those living there with the ruddy evidences of health which beam in the eye, and tint the skin of such children as breathe pure air, and sleep in well ventilated and healthy apartments away from the bad air, and its influences, and mark the difference. And yet, with all these facts familiar to most thinking men, how little attention is paid to this important item of health and comfort by the mass of community.

During the warm weather, families living in comfortable circumstances are able to remedy the difficulty by obtaining from a good ventilation a proper quality of air, but when winter comes, and the doors and windows have to be closed to keep out the influences of cold, difficulties are encountered of which it is the particular subject of this paper to describe.

Then it is that we begin to mix with the air we breathe, substances hurtful and injurious to health and strength, and when we most need the aid of science to determine what are bad influences and how to guard against them.

Independent of the purity of the air we breathe, there are also considerations concerning its artificial warming for our comfort, which are highly important.

In a tightly closed house there are conditions imposed upon the air by most of the devices in use for warming it, which injure its quality and operate to the discomfort of those using it.

The sensitiveness of the skin to sudden changes of the outer air nature has provided, in a measure, protection, but against the sudden changes of air artificially warmed, the provision is not so ample.

The skin covering the body is filled with innumerable minute pores, which are extremely sensitive to changes of temperature, and particularly so to the changes to temperature in atmospheric air artificially warmed; and it is quite as important that a uniform temperature should

be had, and without sudden changes of heat and cold, as that the air should be pure and uncontaminated.

In nearly all the modern appliances for warming dwellings and sleeping apartments, these objects are overlooked; or, if means are provided against such influences, they are badly contrived and useless.

The point to be accomplished by these devices being, it would seem, to make as hot a fire as possible for a time, and to be followed by a point of temperature as far in the other extreme.

The ordinary hot-air furnace with an ordinary fire pot, into which is placed the fuel for a three or four hours supply, all of it at the same time under the influence of draft and combustion must reach its maximum of heat at the time when all is in a vigorous combustion, and there must be a period when the temperature will not be so great as others, and the influences of such a fire are irregular and uncertain.

In the replenishing of such a fire an interim of low temperature must follow, and that, too, with one of these contrivances in the best possible working order, and if its management is left to incompetent persons, the difficulties are increased many times.

The temperature of the human body varies but about two degrees—five degrees either way are fatal to life.

To protect the body from changing of temperature and to keep an equilibrium of heat and cold, nature has provided a covering for the skin of innumerable pores, and when the body is subject to the influence of a high temperature, perspiration commences through these vessels to the skin, the evaporation of which moisture cools the body and preserves a uniform degree of temperature.

Knowing this fact, common sense will suggest that the more uniform the temperature may be, of the air surrounding the body, the less tax there is upon the skin, and the bad effects of sudden changes avoided.

Air properly warmed for the health and comfort, should be supplied in abundance, with a temperature only varying to meet the changes of the outer air; should carry in it no more moisture than the outer air has in proportion to its volume, and should be warmed by a continuous fire.

The temperature of the rooms should be kept as uniform as possible—not by heating a small quantity of air, very hot, and passing it into the room, but by heating a very large volume of air moderately.

The usual operation of hot-air furnaces is to furnish air to apartments at two high a temperature when in full operation.

The air is filled with minute particles of dust from the decay of material, with which it is in contact; these pass in with air, and from the action of highly heated surfaces are charred, producing gases unpleasant and hurtful. This may be avoided by largely increasing the volume of air and by introducing this large volume into the rooms at a lower temperature and this last procedure has

GANANOQUE  
RIVET WORKS.

*PARMENTER & BULLOCH,*  
**GANANOQUE,**

MANUFACTURERS OF WARRANTED

**IRON AND TINNED RIVETS,  
COPPER BELT AND HOSE RIVETS AND BURS,**

**Stove, Carriage, Wagon, and Sleigh Rivets,  
KETTLE EARS, WROUGHT IRON FELLOE  
PLATES, BARBERS' AND SPOFFORDS'  
PATENT CARPENTER'S BRACES,  
MOPS, &C.,**

OF EVERY DESCRIPTION.

**AGRICULTURAL IMPLEMENT  
AND  
SPECIAL RIVETS**

**Made to Order.**



### PLUMMER & SON.

The waggon factory of Messrs. John Plummer & Son, 476 to 482 Rideau street, London, is one of the largest in that city, and does a very extensive business not only in the Western part of Ontario, but throughout the Dominion. The building is of brick; two stories high, with a frontage of two hundred and forty feet by a depth of two hundred and thirty three. The firm employs about thirty hands constantly and turn out on an average about fifteen wagons a week. There is a large building used as a storehouse for spokes, hubs, etc., a paint shop, blacksmith shop, etc. The buildings and yard together occupy about one and a half acres of ground. The machinery is very complete and is driven by a twenty-five horse power engine. One very noticeable feature of the establishment is that it has a powerful fire engine on the premises, which is always kept in good working order so that very little danger from fire need be apprehended.

this further advantage, that it heats the space to be warmed more uniformly and without currents of unequal temperature.

As atmosphere is expanded by heat, its capacity to absorb moisture is increased, and if the air be too dry it will absorb moisture from the tissues of the eyes, throat, nostrils and lungs; but this difficulty may be obviated by evaporating a small quantity of water and passing the vapor in with the air.

This last mentioned arrangement exists upon most of the modern hot-air furnaces, but is generally arranged in such a manner as to do more real harm than good.

A vessel is provided, holding a large quantity of water, which, when the furnace is in full operation, boils violently, throwing into the room clouds of vapor, which, being in excess of the amount required, renders its presence quite as depressing upon the feelings as the absence of any moisture would be.

Again, this tank is seldom cleansed, and sediment collects in the bottom of it from the earth matter, being dead animalculæ and material in solution in the water; and when the water is entirely evaporated as is often the case, the odor from this material fills the house with sickening and disgusting fumes.

It is a popular error, that time will only correct, that steam-heated air is more healthful than that obtained from properly arranged hot-air furnaces, and in the present condition of opinion it were, perhaps, idle to combat it, but as there are some facts pertinent to the subject, it may not be out of place to name them in this connection.

To any one who has experienced the close, oppressive character of the air heated by steam, and the lassitude and sense of weariness which accompanies its use, and has contrasted the same with the use of air warmed by a well constructed furnace, and noted the difference, they will be convinced that there is something in the air

heated by steam which produces discomfort, and that there is a want of vitality which air warmed in another manner possesses.

It is an argument often used by the promoters of steam heat, that the air must be better when warmed by steam than by the ordinary contrivances, from the fact that plants will thrive in the one, while in the other they will not. This is no doubt so, but when we take into account the fact that plants, when growing, absorb carbonic acid gas, and give off oxygen; and when we consider the fact that carbonic acid gas is deleterious to human life, is it not a fair solution to the problem that it is because they obtain more carbonic acid gas in the atmosphere heated by steam than they do in the air warmed by hot-air furnaces, and hence the advantages such an atmosphere gives them.

The great advantages derived from a continuous fire, and the uniform character of heat produced by such a management of combustion, are paramount considerations. In the adaptation of the base-burning principle to stoves and heaters, a great step is taken to obtain this result.

Such heaters are furnished with magazines which contain coal enough for twenty-four hours' combustion, and the coal is supplied to the fire just as fast as it requires fuel. A furnace thus constructed burns uniformly, and is not spasmodic in its operation; a uniform heat may be had, and maintained at any point that is desirable, without the slightest difficulty.

Most prominently before the public is the Self-Feeding Magazine Furnace, "LIVELY TIMES," manufactured by BEECHER BROS., at London, Ontario, for accomplishing these results. This Furnace is the invention of Jos. C. HENDERSON, and is one of the most perfect appliances every made for burning fuel, and for heating air to be passed into the rooms of dwellings, stores, &c.

In the management of these Furnaces, the simplest kind of intelligence is called for. It seem to have been the desire of the inventor to make the whole affair as automatic as possible, by an arrangement of devices exceedingly ingenious and complete in their appointments.

The fire can be maintained for a whole winter without rekindling, and the mere shaking of the grate twice a day, and the filling of the magazine with fuel, constitute all that is necessary to operate it. Its arrangements are so complete that it may be operated by a person of the most ordinary intelligence.

The range of temperature required can be established with accuracy, and when so adjusted as to meet the requirement, will run with perfect regularity, which renders its use of the greatest possible convenience.

Again, to prevent excessive evaporation of water, the manufacturers have placed a valve upon the evaporating pan, by which the proper quantity of water is supplied by the hydrant pipe, which is permanently connected with the furnace so that this supply of water is automa-

*Middlesex Works,*

ESTABLISHED 1841.

**PLUMMER & SON,  
WAGGONS, SLEIGHS, HUBS, SPOKES,  
Felloes, Shafts, Poles,**

And all description of Woodwork for

*Carriages, Sleighs & Waggon.*

**WHOLESALE AND RETAIL.**

476 TO 482 RIDOUT STREET,

**LONDON, - - - Ontario.**

#### PINKERTON, WHITHAM & CO.

One of the most prominent manufactures which has sprung up in Montreal during the past quarter of a century is that of boots and shoes; and from a very small beginning Montreal can now boast of some of the most extensive factories to be found on the continent and turning out quite as good, if not better, work than any of the factories in the States. Amongst the leading houses must be mentioned that of Messrs. Pinkerton, Whitham Co., corner of Youville and Normand streets, at the foot of McGill street. They occupy a fine, four story, cut stone building containing an area of fifty thousand square feet. The first floor is devoted to offices, packing-room and store-room. The second floor is used as the cutting room, with fitting-room attached. The third floor is used for sole leather work, and there is also a sole and bottoming-room. On the fourth floor is the bottoming and pegging-room, and a portion of it is used for cleaning and trimming. The entire establishment is thoroughly well fitted throughout with the newest and most improved machinery and is capable of turning out about 6,000 pairs of first class boots per week. Although only established in 1875 Messrs. Pinkerton, Whitham Co., have displayed great energy and enterprise, and now employ about one hundred and fifty hands, while the steady stream of trade would induce the visitor to their establishment to think that the much talked of "hard times" had not reached them yet, and gave no indication of doing so in a hurry.

tically furnished, and does not require any attention after the furnace is put up and started.

The mechanical construction of this Furnace is not excelled by anything of the kind. The manner of mounting it prevents the escape of coal gas from the fire into the rooms. The arrangement of heating surface is well designed for heating uniformly a very large volume of air, and it is so well constructed that the flues may be easily and readily cleaned. Considered in all its appointments, it has no faults, and is full of good qualities, calculated to remedy the difficulties of bad air, changeable temperature, and a too moist atmosphere.

#### ROSES.

A moderate liking for roses as good things in their place has been justly considered one of the results of home education which are least open to objection. It is, however, by no means general among persons who have taken so prominent a part in public life as to have attracted the attention of history; and who share with the black-beetle a positive distaste for the rose. The famous Chevalier de Guise could not smell a rose without feeling uncomfortable; and Venier, one of the Doges of Venice suffered under the same disqualification

for the pursuits of gardening. Anne, of Austria, wife of Louis XIII., could not even look at a rose in a painting without being seized with tantrums. Nevertheless many people who are willing as a rule to take examples from the great have persisted in entertaining friendly sentiments towards this flower, and every time that the spring and early summer bring back the pretty vegetable they fall to telling one another all they know about it. In the East there is still a belief that the first rose was formed by a tear of the prophet Mahomet, but nations of more cool and disciplined imagination have sometimes admitted that its origin is lost in obscurity. Roses were used very early in history among the most potent ingredients of love philters. They seem to have been imported by the Romans from Egypt until the reign of Domitian. Antiochus slept upon a bed of rose-leaves. Mark Antony begged that Cleopatra would cover his tomb with these flowers, and "mer rosa" was a favourite term of endearment among Roman lovers, as who should say "mon chcu" (my cabbage) nowadays in France. Homer has adorned the shield of Achilles and the helmet of Hector with roses. Among the Greeks it was a custom to leave bequests for the maintenances of sepulchral rose-gardens over the grave of the testator; and at Torcello, near Venice, an inscription may still be seen which shows that this fashion was adopted in Italy. In Stock's collection of engravings on stone there is a beautiful design cut in garnet. It represents a butterfly settling on a rose, and it is supposed to commemorate the death of a young girl. In Turkey, a stone rose is often sculptured above the graves of unmarried women. A charming bas-relief on the tomb of Mduc. De la Live, who died at the age of twenty, represents Time mowing a rose with his scythe. According to Indian mythology, Pagodasiri, one of the wives of Vishnu was found in a rose. Zoroaster is said to have made a rose-tree spring out of the earth and bud and blossom in the presence of Darius, who had called upon him to perform a miracle. In Babylon a preparation of shoe-leather was much esteemed when it had been impregnated with the scent of roses; and Abdulkari, an eminent Turk, who wanted to live there, being made aware of this fact, discovered an ingenious way to profit by it. In reply to a demand which he had made for the freedom of the city the Babylonians sent him a bowl brimful of water, to signify that there was no room among them for an intruder. Abdulkari placed a rose-leaf on the surface of the water without spilling a drop of it, and having thus indicated that he might be received without making a mess, he obtained the object of his desire.

In one of the books attributed to Solomon, eternal wisdom is compared to the plantations of rose trees at Jericho. Princess Noormahal, the most lovely lady in the harem of a Great Mogul, had a canal filled with rose water and rowed about in it with her august consort. The heat of the sun disengaged the essential oil

# *Pinkerton, Whitham & Co.,*

MANUFACTURERS OF

## BOOTS AND SHOES, WHOLESALE,

11 Youville Street, . . . . . Off Foot of McGill Street,  
**MONTREAL.**

We manufacture a general assortment of Mens', Boys', Youths, Womens', Misses' and Childrens' pegged and sewed work, which, upon examination, will be found unsurpassed in quality, style or finish. Our goods are manufactured from the very best stock to be procured in this market, and particular attention is always given to produce stock unequalled in Canada for quality and durability. To attain the desired result we employ none but the very best work-people, and the most reliable and well-proved machinery. In consequence of our care in this and other respects, in whatever part of the country our goods have been sold we have no difficulty in selling afterwards, and we are constantly receiving letters from those who have purchased them congratulating us on the result attained.

Any orders intrusted to us will have our most careful and prompt attention.

We beg to call attention to a description of our establishment on opposite page of this book.

**PINKERTON, WHITHAM & CO.**

MONTREAL, June, 1876.

#### CHARLES RAYMOND.

Upon calling at the office of the above-named gentleman and requesting permission to inspect his factory, we were courteously conducted over the works by the manager, Mr. Leonard, who explained to us the different processes in the manufacture of a first class sewing machine. Mr. Raymond, makes four different kinds which are no new candidates for public favour, but have been tested and retested for many years. Since the establishment of Mr. Raymond, in Guelph his machines have gained a world-wide reputation and the business has steadily increased until shipments are now being made to all parts of the civilized world. For simplicity of construction, excellence of workmanship and perfection in sewing, they are not surpassed by any other sewing machine in the market.

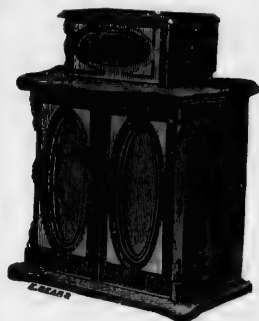
The factory for the family and tailoring machines, which are worked by foot-power, and have been hitherto sold chiefly in the Dominion, is situated on Yarmouth Street and is a new building, erected at a cost of twenty thousand dollars, to take the place of one burned down in 1875. It is of brick, three stories in height, with 130 feet frontage and 100 feet depth. In this factory we found machinery of the newest and most approved description for the manufacture of a first class article. Hot air carried to every room keeps the building comfortably warm in winter, the large fan for this purpose being driven, in common with all the lathes and other machines, by a fine engine of thirty-five horse power. The offices and show room, which are handsomely fitted up are in the main building fronting on Yarmouth street.

When we had seen this establishment we were under the impression that the object of our visit had been accomplished, but Mr. Leonard then invited us to accompany him over another factory situated at a short distance from the one in which we were. This proved to be a large stone building at the corner of Yarmouth and Suffolk streets, two stories high, with a frontage of 215 feet and a depth of 40 feet. This second factory is devoted to the manufacture of the lock-stitch and chain-stitch hand sewing machines nearly all of which are intended for foreign markets. Over eighty machines and lathes are on the ground floor of this building, the power being obtained from an engine precisely similar to the one previously described. The second floor is occupied for adjusting and finishing the machines which are all carefully tested in every way before shipment. In the packing room it is interesting to see the cases marked ready for transportation to different parts of the world, England, various European countries, South and Central America, Australia and Asia.

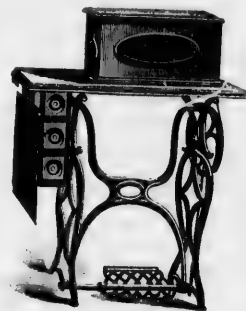
Separated from this factory by a yard at the back is a third building, two stories high, also of stone, having a length of 80 feet and width of 40 feet, which is occupied by the wood workers, all the cases, stands and cabinet work required in the business being made.

Mr. Raymond has about two hundred men employed upon a production of about six hundred sewing machines per week, with a capacity for a very large increase in the production according to the demands of trade.

from the water, and their Majesties having observed the fact invented otto of roses. The Emperor Helogabulus filled a fish pond with rose water, but it is nowhere said whether the fishes approved of this proceeding. When the Soldan Saladin, who had so much trouble with hardfisted English King Richard and his turbulent Christian friends, took Jerusalem in 1188 he would not enter the Temple, which he profanely called a mosque, till he had its walls washed with rose water, and Sanut assures us that 500 camels were no more than sufficient to carry the purifying liquid. Also, after the taking of Constantinople by Mahomet II. in 1455, the church of St. Sophia was solemnly purified with rose water before it was converted into a mosque. The high priest of the Hebrews wore a crown of roses when he offered up certain sacrifices under the Mosaic dispensation; and it was perhaps in remembrance of this fact that the Synod of Nisner, which was held in the third century, enjoined every Jew to wear a rose on his breast as a distinguishing mark of inferiority. In many countries the Jews still celebrate the festival of Easter Flowers, during which they ornament their lamps, chandeliers, and beds with roses. Thus it happened that these flowers were hateful to the early Christians, and are often condemned in the writing of the Fathers, who professed that they could not understand that pious people could think with equanimity of roses when they remembered the crown of thorns, afterwards this hostile feeling seems to have died out. When Marie Antoinette passed through Nancy on her way to be married with Louis XIV., the ladies of Lorraine prepared her a bed strewn with roses. In the Middle Ages roses were held so precious in France that a Royal license was necessary to grow them. Charlemagne recommended the cultivation of the rose in his "Capitulation." The Persians of Shiraz stop their wine bottles with roses, which give the wine a pleasing smell; and during the festival of Abrizan, which takes place during the equinox, Persian ladies throw roses at each other when they pay visits. At Rome it was the practice of the Church to bless the rose on a special day set apart, which was called Rose Sunday. The custom of blessing the golden rose seems to have begun in the eleventh or twelfth century. The benediction was pronounced with particular solemnity on the fourth Sunday in Lent, and the golden rose thus consecrated was given as a mark of the Sovereign Pontiff's favour to some prince or princess. Alexander III., who had been received with great honour during a journey which he made in France, sent the golden rose to Louis the Young as a sort of graceful compliment. Subsequently the giving of the golden rose became an authoritative act by which the



RAYMOND'S  
SEWING  
MACHINES.



CHARLES RAYMOND,

MANUFACTURER OF

Lock-stitch and Chain-stitch  
SEWING MACHINES,

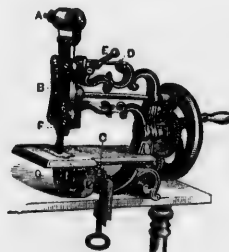
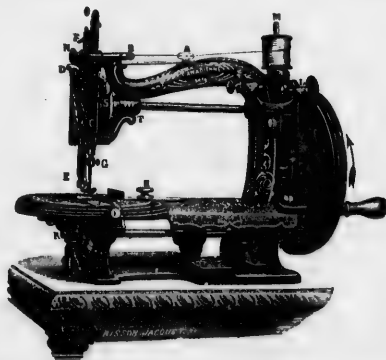
*To Work by Hand or Foot Power.*

LIGHT RUNNING, BEST WORKMANSHIP, DURABLE,

With Latest Improvements.

FOR HOME AND FOREIGN MARKETS.

GUELPH, ONTARIO, CANADA.





#### A. RAMSAY & SONS.

This business was founded by the late Alexander Ramsay, senior. He commenced business in 1811, and pursued it with such persevering assiduity, displaying such unostentatious benevolent kindness, that earned him the respect of all those with whom he came in contact; and upon his decease, his funeral was attended by a *cortege*, larger and more general, than, perhaps, any which had been accorded a private citizen; stores being closed throughout the city, and his loss felt by the whole community.

He left the two large stores upon Recolet street, built by him, with a trade extending over the whole Dominion, constantly increasing in magnitude. This was carefully cultivated by his son, the present Alexander Ramsay, under the old style of A. Ramsay & Son. Its ramifications and departments so developed and increased, that extensive outside buildings had to be employed. In 1872 Mr. Ramsay acquired the present property upon Inspector and College streets, covering nearly a whole block; and a year later commenced manufacturing paints, &c., increasing and multiplying the bulk and articles of production until the factory has reached its present stage.

At the close of 1875 finding his business had assumed such proportions that he could not conveniently attend to all its details, the proprietor disposed of the Recolet street portion to Messrs. Denoon, Drake & Dods, and concentrated his attention upon the business of the works.

We had the pleasure recently to inspect these premises, and the working of the various industries therein conducted; and the noise of the machinery, mills working tanks, vats, bins, and conduits in use, drays and teams discharging or loading, and the many hands employed, seemed scarcely in the accordance with the "dull times" elsewhere experienced.

The materials are carried to the upper flat by steam hoists, and thence discharged into the various hoppers or mixers which supply the mills upon the next floor; the manufactured goods are thence conveyed to the lower flat for packing.

There are paint mills for apparently every conceivable, and it seemed to us, for some utterly unconceivable purposes, each suited to its especial material or work. Some are fitted to work in running water, others with peculiar contrivances to avoid heating, or to obtain particular results in the higher grades. In the tinning room work usually executed by hand as "filling," "soldering," cleaning, &c., is all done here by machinery. And throughout the factory the amount of labor saved by machinery and appliances cannot be readily calculated, no expense or effort seeming to be spared to obtain the desired result.

In the Oil Refinery, huge caldrons, vats and tanks, like small houses, are seething and boiling. And in the press room are huge hydraulic, screw and lever presses,

some running up the whole height of the building. This factory also is fitted with every appliance possible to accelerate its business, as gauging, measuring and weighing tanks, syphons, and machines, and all the paraphernalia of a large oil trade.

We went through the oil vaults and cellars containing thousands of barrels of oil, cool as ice wells; and through the stores with their labyrinths of piles of casks, barrels, kegs and cases.

The firm limit their trade to large dealers, and aim to produce the highest qualities at the lowest price. Among their specialties are, "Orr's patent white," (a paint which promises to supersede white lead, possessing equal or greater body and far more permanence). "Vienna" and other permanent greens, and pure fine staining colours, and all the higher requisites of the painting and decorative arts.

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Pope officially recognized the rights of Christian Sovereigns. Thus Urban V. gave the golden rose to Joan, Queen of Sicily, in 1363, thereby preferring her over the King of Cyprus. Henry VIII. of England received a golden rose both from Julius II. and from Leo X. Towards the close of the last century the golden rose appears to have been given almost indiscriminately to any travelling prince who would pay a sum equivalent to about £400 in fees for it.

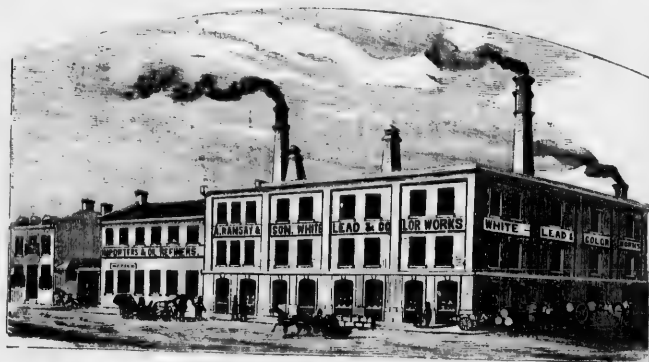
There are infinite variety of stories about roses. When Milton was blind the Duke of Buckingham, who visited him, observed that his wife was a rose. The lady had a fine high temper, and so Milton answered that doubtless she was, for he could feel her thorns. Frederick the Great was walking in the gardens of Potsdam with Voltaire, and asked the amazing Frenchman for a rose. He picked one, and presented it to the King with the remark that it had grown beneath his Majesty's laurels. Luther had a rose graven on his seal. A rose tree in the park of Roxburgh marks the place where James II. died. At Santiago, in Chili, when ever a stranger is received in a house, each of the ladies of the family offers him a rose. To show the preference which Mme. de Genlis entertained for old men above old women, she was fond of saying that oaks improved with time but roses faded. It may be mentioned, in passing that Mme. de Genlis has the credit of having introduced the first moss roses ever seen in France.

Among the incredible number of names given to roses there is the Rose of Scotland (*R. spinosissima*): it is a very pricey flower. The Rose of York and Lancaster (*Rosa damascena versicolor*) a red and white rose, recalls the ending of the greatest English civil war. There is quite a nobility of roses, nearly all the heroes and heroines of history being identified with some flower of this type. It is as good a nobility as any other. There is even a *Brown* rose in Nepal (*R. Brownii*) which will transmit that gentleman's name to posterity with the Lawrence rose. But the Brown rose will not

# A. RAMSAY & SON,

White Lead

AND



PAINT MANUFACTURERS,  
Oil Refiners,

**Plate Glass Importers and Merchants,**

8 TO 22 INSPECTOR ST., AND 222 TO 226 COLLEGE ST.,

**MONTREAL.**

## SPECIALTIES.

PAINTS and COLORS, &c., for Decorators, Sign Writers and Painter's use, of the highest qualities at lowest prices.

**Genuine White Lead**—absolutely pure, excelled by none.

**Orr's Patent White Paint**—A new white pigment, 58 per cent. more bulk than White Lead, has greater body, is vastly more permanent, much whiter, more convenient, and is perfectly innocuous.

**"Vienna" and other Permanent Greens**—of highest qualities, most brilliant shades, and of the greatest permanence.

**Turkey Umber, Italian Sienna, Oxford Stone Ochre, &c., &c.**—Pure pigments of the highest qualities, ground "fine as butter."

**COLORS for DECORATORS and SIGN WRITERS**, of highest qualities and finish.

**METALIC ROOFING PAINTS, ANTICORROSIVE PAINTS** ready for use. Best and Cheapest Paints for all outside purposes.

**LINSEED OIL**—Raw, Boiled, and Pale Boiled; and all Vegetable, Fish, Machinery, Lubricating and Burning Oils.

**PLATE GLASS**, all sizes, in Stock or to Import.

CORRESPONDENCE INVITED.

**DOMINION PLATE GLASS INSURANCE OFFICE**

Insures Plate Glass in Windows or in Transit.

ALEXANDER RAMSAY, 10 INSPECTOR STREET.

## ROGERS AND KING.

The extensive factory of Messrs. Rogers & King, founders, is situated at No. 645 Craig street, Montreal, gives employment to about eighty men and turns out excellent work. The foundry is built of brick, two storeys high; and the firm are sole manufacturers of Spence's Patent Sectional hot water and steam boilers, and Spence's patent improved "Beehive" boilers for heating houses. They do an extensive business and their goods rank as first-class in every respect.

survive a frost says the perfect gardener. Among the Greeks, the Romans, and the Gauls parsley, ivy, myrtle, and roses were looked upon as valuable remedies for people who had drunk more wine than was good for them. In Capua roses were employed by the local medical men as tonics good for stomachs fatigued by over-eating. A decoction of roses was supposed to have excellent astringent properties. Hoffman recommends it in pleurisy; Paracel thinks that when mixed with honey it will lengthen life. A long list of authorities may be produced to show that rose leaves discreetly used are a perfect cure for hydrophobia. A spirit made or flavoured with roses was the favourite cordial of Philip the Handsome, and was considered by Charlemagne as a specific against fainting from loss of blood in battle. A poultice of roses was long employed for flesh wounds and roses preserved are still believed in many places to cure consumption and all diseases of the throat and lungs. The best preparation of them is said to be made from rosebuds and sugar in equal parts.

## THE GROWTH OF THE UNITED STATES.

Some idea of what our neighbours have achieved since they became independent may be gleaned from the following interesting article from the *Boston Globe* :—

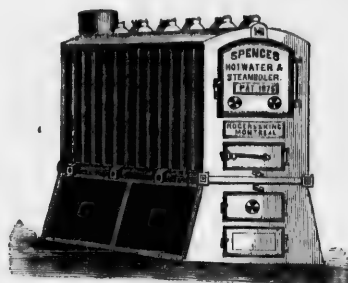
"When one glances at some of the industrial achievements of the country, the conclusion is irresistibly arrived at that the United States is a big country—big in the creation and development of all the elements of a great and increasing material prosperity, showing remarkable illustrations of national character. There are figures that daze in this respect, and in this centennial year it is proper to present some of them. For instance, in 1875, according to one authority, there were not less than 154,757,000 pounds of domestic wool manufactured into various kinds of goods, employing nearly 100,000 hands, and the wages paid to the operatives amounted in round numbers to \$25,000,000, the capital invested being about \$100,000,000, while the combined power necessary to the realization of this branch of operative industry is equal to the applied force of 95,000 horses, capable of carding 857,500 pounds of wool per day. Yet there was not a machinery-made woolen shirt in the American camp during the revolution."

"In the matter of cotton manufactures, one hundred years after the declaration of American independence in 1875-1876, not less than 1,722,000,000 yards of cotton goods, including 726,000,000 yards of sheeting, 217,000,000 yards of twilled goods, and 749,000,000 yards of prints, were produced in the United States, 21,242,080 bales of raw cotton were consumed, being manipulated by 186,000 looms and 10,000,000 spindles, giving employment to fully 135,000 persons, whose wages amount to \$35,000,000 annually, the capital necessary to realize all this approximating \$140,000,000, and the value of all products about \$175,000,000. Were we inclined to indulge in a geographical estimate of the production of this branch of operative industry, the yards of sheeting, twilled and print goods produced in the year lying in the doorway of the centennial year would be sufficient, if put into one piece, to encircle the earth at the equator over thirty-nine times, beginning at a given point, with enough left over to stretch from Boston to the city of San Francisco, on the Pacific coast, its end awashing around in the waters of the Golden Gate. This queer illustration may be regarded as a stretch of the imagination by some of our readers, but it is not only apt, but typical of the long-drawn out production of the spinning spindles and looms of the nation's 900 or more cotton mills in this, the centennial year of our history."

"Touching the improved resources of the people contrasted with one hundred years ago, when the American army suffered in camp for the want of shirts, shoes, etc. a feature of our operative industry as it exists to-day shows that in the matter of clothing that the overcoats supplied to the soldiers of the late war numbered 2,218,917, a quantity that would have been sufficient to obstruct the army movements under General Washington, and nearly enough to provide an overcoat to one-third of the voters in the United States to-day. In fact, the people are better clothed to-day than were the Kings of the world two hundred years ago."

"The industrial wonders of a single State, too, are really wonderful in this centennial year. Massachusetts and Pennsylvania excel in manufactures; New York and Illinois make astonishing exhibits in agriculture; but it has remained for California to cap the climax in the production of the necessaries of life. That State, settled only thirty-five years ago, is already competing with the vast empire of Russia in wheat. The most careful estimates set down the wheat crop of the present year at 1,000,000 tons, 700,000 tons of which will be available for export. According to the *San Francisco Bulletin*, to convey this vast mass of human food to Europe, 700 ships of 1,000 tons burthen would be required. Sailing in sight, or twenty miles apart, this fleet would extend 14,000 miles, or around nearly three-quarters of the globe. Loaded on waggons of two tons each, the procession would extend from San Francisco to New York, following the sinuosities even of the Central and Union

# ROGERS & KING,



*Craig Street Foundry,*

**645 Craig Street, Montreal,**

SOLE MANUFACTURERS OF

**SPENCE'S PATENT SECTIONAL HOT  
WATER AND STEAM BOILERS,**

AND

**SPENCE'S PATENT IMPROVED BEE-HIVE BOILERS,**

FOR HEATING BUILDINGS, CONSERVATORIES, &c.

---

All kinds of Hot Water and Furnace Fittings, tapped and untapped. Fancy Screens, for Coils and Skirting Pipes. Plumbers' Wares of all kinds. Also all kinds of House Castings, Railings, Crestings, Columns, &c., kept in stock, or made to order. Potash Kettle and Coolers, Sugar Coolers.

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**Send for Circulars and Price Lists.**

## ROCHE AND DROLET.

The aerated water manufactory of Messrs. Roche & Drolet is situated on Sussex street, Ottawa, and is a fine stone building, three storeys high, having a frontage of fifty feet by a depth of thirty. This is the only first-class soda water manufactory in Ottawa, and, although only established in 1875, already turns out about one hundred and fifty dozen a day, and gives steady employment to a dozen men. The full producing capacity of the factory is over five hundred dozen a day, and if the business of the firm continues to increase as rapidly as it has during the past year, the full producing capacity of the firm will soon be tested. The firm also manufactures Ginger ale, Seltzer water, Champagne cider, &c., and all kinds of syrups.

Pacific railroads, the noses of the leaders of each waggon touching the tail board of the one in front. In this calculation we allow only forty-nine feet to each team. If the countries to which this vast crop will be sold used grain as liberally as we do, California has produced enough of bread this year to feed five millions of people besides her own. She has produced enough to supply the wants of one-seventh of the population of Great Britain and Ireland."

## HOW A WIDE AWAKE FARMER GOT AHEAD OF TWO FANNING MILL PEDDLERS.

In the neighbourhood of Guelph there formerly resided a fanning mill manufacturer, who, commencing in a small way, but making a good mill, was determined to place it in the hands of every farmer within fifty miles. Not being able to secure a peddler who was quite up to the mark, and possessed of indomitable energy and will, he determined to sell his own fanning mills, and have no continued opposition from any source. Levi, for this was his name, succeeded in his plans for quite a while, but eventually heard of a man (we will call Brown) who, with equal good purposes, was canvassing the Guelph section, and selling a lot of mills. With intent of running off his competitor, Levi drove after, and finally caught up to Brown, just as the latter was in the act of unloading a fanning mill in a farmer's yard. Driving in, Levi followed Brown's example, and placing his mill besides that of his competitor, proposed a trial of merit, which resulted in the farmer declaring there was not much difference in them, and he would buy the one who sold cheapest. Then commenced the "tug of war;" each man underbid the other, determined to sell, and thinking to scare off his opponent. From twenty-five dollars the price was rapidly run down, until Levi offered his mill for ten dollars; Brown excited, and bound to win, offered his for eight dollars, when it struck Levi that selling at a loss was likely to discourage his competitor the most, when he came to consider the matter coolly, and he then

advised the farmer "to buy Brown's mill, as that was less than half cost, and he didn't think it was worth while to try and compete with such a man." Starting to take up his mill and leave, he was dumbfounded at hearing the farmer say, "stop, I'll take them both; here's your ten dollars, and Brown here is eight for yours; I guess I know enough to buy two mills for less than the price of one, when I get the chance." Both peddlers looked solemn, the joke was against them, and they departed "sadder but wiser men."

Levi was always stoutly maintained ever since that it completely demolished Brown's pluck, and he never afterwards was heard of in that locality.

## THE FOLLY OF ENDORSING.

What can be more vexatious than to become involved by indorsements? You meet with a friend who wishes to get an indorsement at the bank. He asks you to put your name on the back of a note, merely as a matter of form. Out of kindness or good-nature you do it, though you reap not the least profit by so doing. By and by, the note becomes due. \* It is not paid, and you are forthwith notified that you being the endorser, must hand over the needful. There is no remedy, your name is down in black and white, and you cannot erase it. Can anything be more provoking?

## T 111 OF F RES FOR HACKNEY CARRIAGES. MONTREAL.

### One Horse Vehicles.

From any place to any others, provided the time occupied do not exceed twenty minutes.

1 or 2 persons.....	25 cents.
3 or 4 persons.....	50 "

From any place to any others, provided the time occupied do not exceed half an hour.

1 or 2 persons.....	40 cents.
3 or 4 persons.....	60 "

When the drive exceeds, the time limited as aforesaid, hour rates to be charged.

### By The Hour.

For the first hour—

1 or 2 persons.....	75 cents.
3 or 4 persons.....	\$1.00

For every subsequent hour—

1 or 2 persons.....	60 cents.
3 or 4 persons.....	75 "

### Two-Horse Vehicles.

From any place to any others, provided the time occupied do not exceed 20 minutes.

1 or 2 persons.....	50 cents.
3 or 4 ".....	65 "

# AERATED WATERS,

MANUFACTURED BY

***Roche & Drolet,***

**Sussex Street, Opp. Murray,**

**OTTAWA, ONTARIO.**

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**SODA WATER,**

**SELTZER WATER,**

**Champagne Cider,**

**GINGER ALE,**

AND

***All kinds of Syrups.***

**PATENT SYPHONS.**



## PAPER HANGINGS.

Now that such a large quantity of paper hangings are being consumed in the interior decoration of the dwellings of our citizens, we feel sure our readers will feel interested in taking a glance with us into the extensive wall paper factory of Messrs. Staunton & Co. Their manufactory is situated in Yonge street, Yorkville, Toronto, and is a very fine building, three storeys high, forty feet wide, and three hundred feet in length.

The first room is that used for the manufacture of Sienna marble hall papers, which is a very interesting process. The workman first spreads on a long sheet of paper a coating or ground colour, and then, with small camel hair brushes, proceeds to sketch out the design in imitation of the veins in marble. He is followed by assistants who, in like manner, touch in the various tints required to complete the design. The remarkable rapidity with which this is accomplished shows great skill and nicety of touch. The article produced closely resembles the finest marbles.

The next room is the hand printers' room, in which is produced the finest description of work, viz.: the velvet and gold, and bronze gold papers and decorations. This work is all done by hand, the workman using flat prints carved with the desired patterns. The colour is spread on floating sieves, on which the carved surface of the print is slightly pressed, and placed on the paper which has already received the desired tint or ground work. The whole is then submitted to a heavy pressure which leaves the impression on the paper. A separate printing is necessary for each colour. The goods produced in this department are of exquisite design and finish.

We next come to the designers and block cutters apartments, in which a number of men are engaged in getting out the block and cylinder prints, the cylinder prints being used for machine printing. This work requires great accuracy, and skillful workmen are employed.

The design is first traced on a smoothly turned roller, 22 inches long and from 6 to 8 inches in diameter, into the outline of which is driven thin lines of brass shaped into the pattern, the intervening space being filled in with a very fine belt. The roller is then put into a lathe, and the surface ground level with pumice stone, when it is ready for the printing machine. As many as eight of these rollers are sometimes required to produce one pattern, and in some instances cost as high as \$200.

We next come to the polishing room, in which are three large cylinder machines driven at a very high rate of speed. Each machine has from three to five large brushes placed around the cylinder. The paper passing between the brushes and the cylinder received, on a ground already prepared, a fine polished surface, and is then ready for the printing machine, which puts on the required colours to produce the fine satin wall papers.

We then pass into the colour mixing room. This is also

an important department, for here the beauty of the design is brought out by the arrangement of tints and colours best calculated to produce a pleasing effect. This department is under the special superintendence of Mr. Staunton, jun. The colours are brought from France, Germany, England, and the United States.

This brings us to the second floor, or machine printing room, which occupies the entire flat, at the extreme western end of which the four machines are ranged. The print or cylinder rollers, before described, are ranged into these printing machines around a large drum or cylinder, a separate roller being put in for every colour desired. The unprinted paper, which is done up in continuous rolls of from eight hundred to a thousand yards in length, passes through between the engraved rollers and the cylinder, receiving, as it goes, a distinct impression from each roller, and, by an elaborate and ingenious contrivance of gearing wheels, the colours are prevented from becoming mixed or blurred, and each colour is exactly adjusted so as to come up to, without coming in contact with, the other. The colours are fed to each roller by endless blanket sieves—the sieve lifting the colour from a receiver and placing it on the roller, which, in turn, puts the impression on the paper. After passing through the machinery, the printed paper is caught up by a most ingenious contrivance, which places a lath under it at intervals of every twelve or fifteen feet, and is then carried in close folds six feet long on a travelling drying rack, for a distance of 200 feet, when it enters a measuring and rolling machine; after which it is done up in bundles, and lowered to the storing and packing department. When it is remembered that each of these machines turns out from two thousand five hundred to three thousand pieces daily, some idea of the producing capacity of this department alone may be arrived at.

We understand that the firm have sent an assortment of their fine production in gold paper for exhibition at the Centennial. Samples of which can be seen at their wholesale and retail warerooms, corner of King and Yonge streets, Toronto.

From any place to any others, provided the time occupied do not exceed half an hour—

1 or 2 persons.....	65 cents.
3 or 4 " .....	75 "

When the drive exceeds the time limited as aforesaid, hour rates to be charged.

### *By the Hour.*

1 or 2 persons.....	\$1.00
3 or 4 persons.....	1.25

Fractions of hours to be charged at previous hour rates—but not less than one quarter of an hour shall be charged when the time exceeds the hour.

Fifty per cent to be added to the tariff rates for rides from twelve midnight to four a. m.

M. STAUNTON, SEN.  
M. STAUNTON, JUN.  
A. A. STAUNTON.

*M. Staunton & Co.,*

*Manufacturers of*

**MACHINE, BLOCK AND STAMPED**

**Gold Paper Hangings,**

**WINDOW SHADES. &c., &c.**

**Dominion Paper Staining Factory.**

YORKVILLE, TORONTO.

*SHOW ROOMS:*

CORNER OF YONGE AND KING STREETS, TORONTO.

The tariff by the hour shall apply to all rides extending beyond the city limits where the engagement is made in the city.

#### Baggage.

For each trunk or box carried in any vehicle 10 cents. But no charge be made for travelling bags, valises, boxes or parcels which passengers can carry by the hand.

### PRINTERS' INK AND BUSINESS SUCCESS.

No business can afford in this enterprising age to do without a little printers' ink. Publicity is an essential element of business success, and many of the largest fortunes ever amassed, have been secured in no small degree by judicious and systematic advertising.

Like everything else, however, advertising should not be overdone. Promises should not be made to the public, which cannot be realised; nor should more than a reasonable sum, considering the person's business, be spent each year. But these things observed, there can be no doubt, that when you can offer a specialty—a better article—or a cheaper than your neighbours, no better investment can be made than a little printers' ink, to let the public know it.

Advertising has now almost attained to the dignity of an art, and requires both judgment and tact, to achieve success. The announcement made, so far as consistent with truth, should be bold and striking, and calculated to arrest the readers attention. A prosy advertisement is of little value. It is often forgotten the moment it is read, and does not take that hold on the public mind necessary to attract custom. Odd and peculiar announcements, either in matter or shape, are frequently successful, but behind the oddity and peculiarity, the purchaser should find something really worthy of his attention. If the purchaser finds the representations incorrect, and that he has been deceived, more harm is done than good. A general recipe for a good advertisement is probably impossible; but the man who first perceives the wants of the community, and announces his ability to supply them in advance of, and better than his rivals, is sure of having an announcement which will command attention, and pay him well.

Whatever mode of advertising may be adopted, those in business should not overlook it. In this enterprising age, when so much competition exists, it does not do to put one's light under a bushel. A little printer's ink is absolutely essential. It's worth has ruined many a business—it's use has built up many a fortune.

### SOME CONDITIONS OF SUCCESS IN BUSINESS.

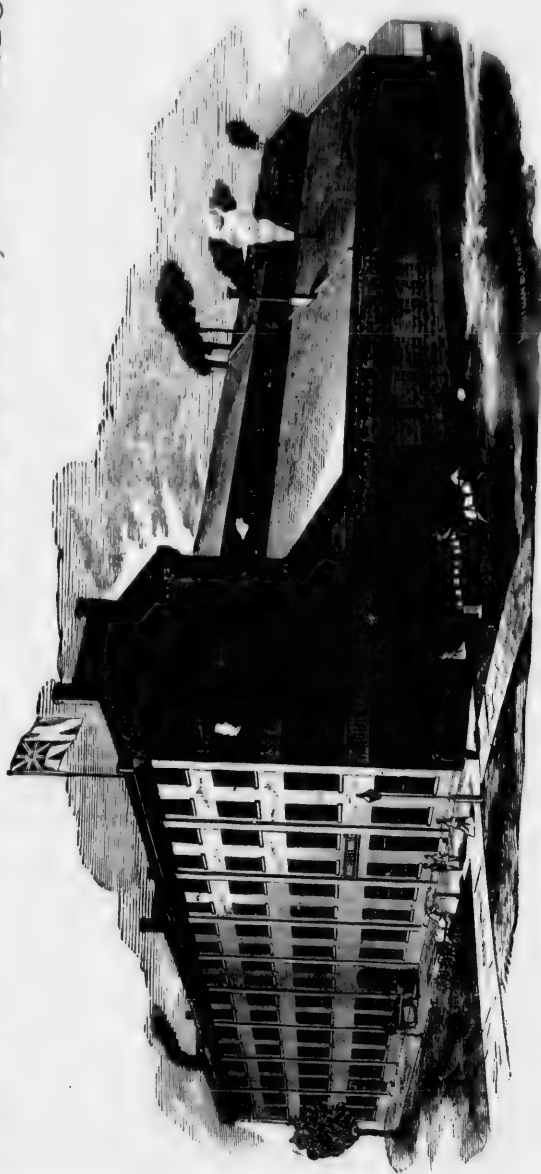
The failures which take place in business, can generally be traced to their actual cause. "Hard times," and "bad luck," have far less to do with the unsuccessful business speculations, than is popularly supposed. Certain conditions are as necessary to business success,

as they are in building a house, or constructing a ship; and the neglect of these conditions, will as inevitably produce failure in the one case as the other. How frequently do we hear people explain their want of success, by saying: "no person could make money, in these times;" or "no person ever had such a run of bad luck, as has overtaken me." And yet, in the case of the great majority of such unfortunates, their failure is wholly attributable to their want of judgment; want of business knowledge, or their own folly. To give a never failing recipe for a successful business, is, of course, impossible. But there are a few simple conditions, which if closely attended to, would soon reduce the insolvent list below its present too ample dimensions.

And, first among the conditions, we would lay down the following: enter into no business which you do not understand. How frequently do we find individuals commencing some branch of manufactures, or some commercial undertaking, who are completely ignorant of the details or working thereof. What legitimate grounds have they to expect success under such circumstances? if they succeed in obtaining employees who possess the practical knowledge which they themselves lack; and if these employees are zealously devoted to their masters interests, they may succeed; but where are these nobly unselfish employees to be found? Experience teaches that such men are rarely met with; and when masters have to rely, for business success, on human nature as we generally find it—when they do not themselves practically know the business upon which they have entered their hopes of making a fortune rest on a very sandy foundation. Exceptions to this rule, their undoubtedly are; but want of business knowledge is a rock, upon which many an undertaking is stranded.

"Have I sufficient capital?" is one of the most important questions, which a person about to commence business can put to himself. Hundreds are ruined annually, from want of sufficient capital to carry on the business they have undertaken. Look at the dry-goods and grocery trades alone: how many new claimants for public custom open out every year, and alas! how many others disappear. The number of failures in the mercantile line, from inadequate capital, is now very large. Hundreds rush into business, without calmly and earnestly considering whether they have money or credit enough to carry it on. It may be that they make a good commencement; but the first heavy payment cramps them, and then begins that desperate struggle, which too often ends in the loss of whatever they invested. So it often is also with mechanical and manufacturing ventures. Before the business is in full operation, in many cases, the proprietors' capital is consumed, and he is without the means necessary to conduct it, with the energy and enterprise to command success. It is now difficult to commence any branch of trade in this country without considerable money. It is, therefore, constantly becoming more necessary that individuals

**JAMES STEWART & CO., HAMILTON, ONTARIO.**



MANUFACTURERS OF  
**STOVES, RANGES, COAL GRATES,**  
 HOT AIR FURNACES, REGISTERS,  
 &c., &c.

Illustrated Catalogues and Price Lists sent to Dealers on application

#### SMART & SHEPHERD.

The business of Messrs. Smart & Shepherd, Brockville, was established in 1869. The factory and office are situated on Gourley street, in the town of Brockville, Ont. Their factory buildings are of frame. The machine shop is one and a half storeys in height, sixty by eighty, the moulding shop is 60 by 160. The warehouse is 40 x 60. The offices of the Company are attached to the warehouse, and are neatly arranged. The works of this enterprising firm extend from Gourley street to the St. Lawrence River, covering over two acres, employing fifty hands, using thirty horse-steam power. The hardware manufactured here is sold all over the Dominion.

#### OTTO SAUERMANN.

The croquet and general wood turning establishment of Mr. Otto Sauermaun is situated on the Grand River, in the town of Paris, Ont., and was established in 1860. The factory is well furnished with machinery for all kinds of wood work; and the croquet sets, especially, made at this factory, have gained great celebrity in the Dominion.

should enter into no business for which their capital and credit are inadequate. To "go it blind," (to use a common phrase) is to court disaster,

Having sufficient practical knowledge of business; and a sufficiency of capital to carry it on, the next point to consider is; where should operations be commenced? This is an important condition of success: and calls for the exercise of careful judgment. The first consideration should be, is there a want in the community, for the particular calling, which it is proposed to engage in. What folly it is, for a man to start a foundry in a town or village, where there are already two or three in operation; and these well conducted, and well able to supply all the public wants. And so, also, with stores and other occupations. It is of the highest importance, to make sure of a good market before one undertakes to supply it; and the chances of success should always be considered when a sufficient business can only be attained by taking away customers from deserving opponents.

Honesty, enterprise, and application. These are three essentials in conducting business properly. Honesty is the best policy. By double dealing and misrepresentation, a transient success may sometimes be achieved; but in nine cases out of ten, it is as evanescent as the morning dew. Let a man be candid, straightforward, and truthful; and he can not only ask the blessing of God upon his labours, but he will stand better with his fellow men. His enterprise should display itself in keeping constantly the best articles in his line: the newest styles, the latest improvements; and be always endeavouring to keep pace with the spirit of the times. To supply his customers' wants better, cheaper, and quicker than his neighbours, should be his increasing

study; nor should he hide his light under a bushel. A little printer's ink is a good thing occasionally; if you have a first-rate article; or a cheap one, which the public require, let them know where they can purchase it. Make no absurd statements about selling "twenty per cent below cost;" but simply announce the truth: and it will be found that a moderate sum, spent in advertising, is a good investment. With these conditions, there must be close application to business; stocks must be carefully purchased, books always kept in thorough order, the daily sales and profits regularly jotted down, and credits limited to those who are perfectly solvent. The head of a business should constantly overlook all its departments, and make sure that none of its wheels need greasing.

And last, but not least; the man who aims at success in business, should be economical without meanness, and affable without being undignified. Many men signalize their entrance upon some new and important business experiment, by an increased expenditure. Before even it is certain that their undertaking will be temporarily successful, how often it is, that the family must have a new house; or the family carriage must be set up! Many a promising business has been cramped, others injured, and not a few ruined, by such extravagance; and far wiser is it to act on the old Scotch maxim: "spend less than you make, if it's only a shilling per day!" The keen competition which now exists in almost every department of business, renders it necessary that the business man, particularly the new beginner, should keep down his expenses to the lowest limit compatible with the proper management of his trade; and no capital should be permanently withdrawn from his business, unless it is quite clear it has accrued from the profits of the concern. A courteous and affable demeanour is also very necessary to success. Many estimable men cultivate this too little. A cheerful word has made many a customer; a chilling manner, many an enemy. This does not involve flunkeyism; far from it; courtesy and affability are not less consistent with true dignity, than essential to business success.

When and where the above conditions of success in business are complied with, you will generally find a prosperous business, and a successful man. It is not denied that misfortunes sometimes come which no foresight could prevent; but those are exceptional cases, and do not account for the numerous failures which take place. Let those now in business or about to engage therein, conform strictly to this standard set before them; and we will guarantee that success in business will be far more general than it is at present.

Let speculators make their thousands in a year or a day; mind your own regular trade! If you are a merchant, a professional man or a mechanic, never buy lots or stocks unless you have surplus money to invest. In other words, stick to your own business!

**SMART & SHEPHERD,**  
**BROCKVILLE, ONTARIO,**  
 WHOLESALE  
**Hardware Manufacturers,**

*KEEP IN STOCK*

PARALLEL VICES,  
 COACHMAKERS' VICES,  
 FOOT MORTISING MACHINES,  
 CARPENTERS' BORING MACHINES,  
 TAILORS' PRESSING MACHINES,  
 SAW GUMMERS (PRESCOTT'S),  
 STEEL SAW ARBORS,  
 WAREHOUSE TRUCKS,  
 SCHOOL SEATS AND DESKS,  
 JACK SCREWS,  
 BENCH SCREWS,

CHEESE PRESS SCREWS,  
 CLOTHES WRINGERS,  
 CARPET SWEEPERS,  
 MEAT CUTTERS,  
 MEAT STUFFERS,  
 DOOR BELLS,  
 HORSE BAKES,  
 APPLE PARERS,  
 PAINT MILLS,  
 WINDOW BLIND HINGES,  
 KNOX FLUTING MACHINES,

VICTOR SNOW SHOVELS,

AND A LARGE VARIETY OF CARRIAGEMAKERS' AND BLACKSMITHS' TOOLS,  
 SHELF AND MISCELLANEOUS HARDWARE.

*Price Lists furnished on application.*

**OTTO SAUERMANN,**

MANUFACTURER OF

**Croquet Sets,**  
**WOOD CARVING, &C.**

**ADDRESS: OTTO SAUERMANN,**

**Paris - - - Ontario.**

**ALL ORDERS PROMPTLY ATTENDED TO.**



L. D. SAWYER & CO.'S AGRICULTURAL WORKS,  
HAMILTON.

Five broad acres in the North-Eastern quarter of the city of Hamilton are devoted to the purposes of the above named works. Here "grain-saving threshing machines," "combination grain-drills," "Canadian self-raking harvesters," and "iron-clad mowers and reapers," are turned out by the aid of one hundred workmen. Forty years' experience in producing such machines, give weight to the testimony of the manufacturers, when they indicate the competitive merits of each. Without assuming the position of advocate of the firm, therefore, we shall merely echo their sentiments, by observing that if one kind of threshing machine can, by the saving of grain it effects, as contrasted with another, thereby defray the cost of threshing, such a fact is worth knowing. If, also, it can be shown that the cleaning arrangements of one such machine are such, that the grain which has passed through it commands an extra price, farmers will be likely to appreciate the circumstance; if, again, by peculiarities of construction, it have facilities for handling straw, wet or dry, long or short, headed and bound, as well as such seeds as flax, timothy, &c., it is desirable that purchasers and employers should be aware of it.

It is, perhaps, needless to affirm that not only all the foregoing merits are claimed for their "grain-saver," by Messrs. Sawyer & Co., but that they challenge comparison with other threshing machines in relation to the need of repair, the day's work accomplished, and the increase of earnings effected. A "combination grain drill," which has obtained three-and-thirty first prizes and diplomas at Provincial and other shows, and at many County and Township fairs, may be presumed to merit the triumphs it has won. The Combination embodies the best features of the various United States machines; and the Drill is said to possess the twofold claim to notice, involved by its sowing every kind of grain with accuracy as to quantity, and with regularity of discharge.

The third implement we have named as worthy of special note, is the "Canadian Harvester." This machine has won itself a character during the last two harvests for adaptation to the driver, to the team, the surface of the ground, and to the growth and condition of the grain. Its sponsors promise and vow that it will serve its employers best, when and where they need it most. When these works were commenced, a single horse sufficed for the heavier operations of the establishment; that power is now multiplied by forty. In passing through the works, we were reminded of a circumstance which attracted some attention at the exhibition of 1851, viz., the numerous instances wherein men of one vocation manifest an adaptation for another. We saw a potato digger, the invention of an emancipated parson, who rejoices in the name of Bawtinheimer; this had been approved by the Commissioners of the Centennial Exhibition and has been sent to Philadelphia.

We had supposed that at a distance of some five hundred miles from salt water, we were beyond the range of iron-clads, until, on exploring Messrs. Sawyer's works, we found ourselves confronted with a genuine specimen; its vocation is happily to mow hay and grain, instead of ranks of men; the more striking features of this "iron-clad" consist in the frame being of a solid piece of iron, and consequently without bolt or screw; it is so constructed, as to inclose the gear; the platform can be swung behind the machine by simply unhooking the pitman; it is thus easily transferred from field to field, and can be taken through narrow barns and gates with as much ease as can a single mower; the quadrant table is the only one so constructed as to admit of being folded out of the way.

The shafting of "the iron clad" is secured to the frame and as that is of a single piece there can be no warping or springing as is the case when the frame is of wood or of pieces of wrought iron. One of these is on exhibition at the Centennial.

A SHORT SERMON FOR BUSINESS MEN.

Text:—"A screw loose somewhere."

There is a large class of persons in Canada, as in every other country, who have little difficulty in making money, but who never become any richer, and not unfrequently end by becoming insolvents. This particular class are generally well-behaved members of society; in most cases, industrious, and stand well in their respective localities. They appear to make good wages, or do a flourishing business, and are the persons, one would suppose, who would readily accumulate wealth. But they don't succeed, and the old saw, there is "a screw loose somewhere," reveals the why and the wherefore of their failure. The "screw loose somewhere," with a large proportion of the individuals referred to, is living too fast. Their business is often excellent—they are considered well-to-do in the world, and handle a good deal of money; but they spend as fast as they make. If they make more, they spend more; but in any event they never accumulate. By efforts to maintain a certain position in society, by indulging in luxuries here, and a little more extravagance there, the fruits of their labor are frittered frivolously away. Frequently these persons believe themselves to be making money; but they keep no systematic record of their expenditure, either household or personal. Local bills are seldom paid promptly, or closely scanned, and they have no means of knowing correctly, nor do they ever trouble themselves to enquire how much they really do spend unnecessarily, in the course of a year. In this way, thousands drift on, until they are rudely awakened from their dreams to find that the wealth they might have made, and indeed believed they were accumulating, had slipped away through leaks, as fast as it was made.

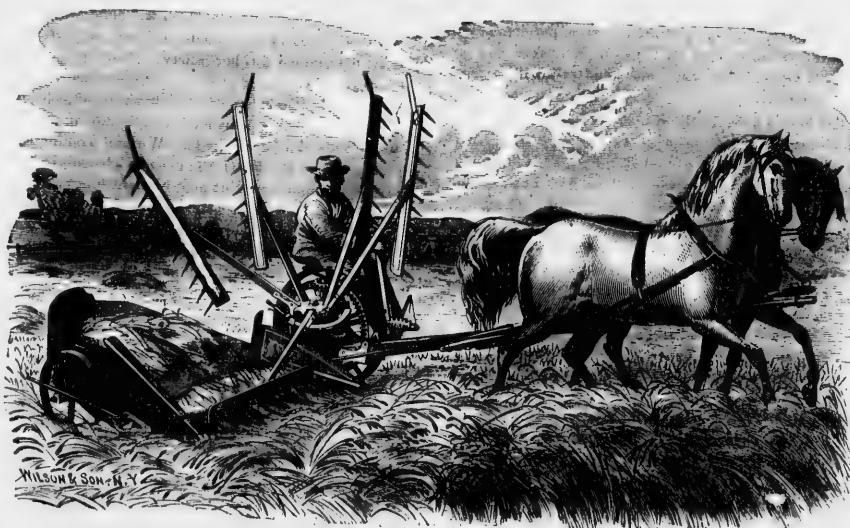
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HAMILTON  
*Agricultural Works,*  
Established 1836.



SAWYER'S CANADIAN HARVESTER AT WORK IN LODGED AND TANGLED GRAIN.

L. D. SAWYER & CO.,

MANUFACTURERS OF

**IRON CLAD MOWERS & REAPERS,**

Two of which are on Exhibition at the Centennial.

**"CANADIAN" SELF-RAKE SINGLE HARVESTERS,**

*Hamilton Champion Grain Drills,*

AND

**"GRAIN SAVER" Threshing Machines.**

Send for Illustrated Catalogue.

**Hamilton, Ontario.**

in real estate, have found before they went far, that there was "a screw loose somewhere." Fine residences are desirable, real estate is often profitable; but neither are desirable nor profitable to those who cannot spare the capital to invest in them. How often is it the case, however, that the particular class to which reference is made, commence to build costly private residences, invest in real estate, or set up the family carriage! Their business, it may be, is doing well, but its profits are drawn upon too largely, for investments of a permanent and doubtful character, and they go on from year to year, foolishly squandering with one hand what they make with the other.

The long-winded credit system, is another rock, upon which many a good business, with an easy-going, free-spending manager, is stranded. This evil is double-headed, for it injures not only the seller, but the customer; the debtor as well as the creditor. Those who want credit, almost invariably pay exorbitant prices for what they purchase. They are frequently mulcted in heavy interest, and their indebtedness has, consequently, small chance of being wiped out. On the other hand, the merchant or trader who gives long credits, and fails to make his collections promptly, cannot purchase advantageously, and similar loss to that suffered by his customers is entailed upon himself, when purchasing from the wholesale dealer. In scores of ways, the evils of extended credits are felt by the country; and it is not too much to say that thousands in Canada would soon become rich, but for the bad debts and other losses, arising from this cause. All the profits which these persons think they are making, really leak through their ledgers, and if they long continue to follow the baneful system, they soon find there is "a screw loose somewhere," which threatens, if it does not actually involve them in ruin.

This little sermon might be enlarged. It might be shown that the profits of many a business are lost through careless or dishonest servants, and in many other ways. But sufficient has been advanced to convince any sensible man, that if he is doing a fair amount of business, and not manifestly becoming better off, there must be a "a screw loose somewhere." The lion in the path of success must be discovered, grappled with, and removed. It is to be hoped, at least, that any who have been living up to, or above their income, and who have a weakness for dubious investments, or any who have crucified themselves by bad customers and long credits, will make a bold strike for a higher business life—one which they will soon find more comfortable, and pretty certain to end in success.

**HINTS TO BUSINESS MEN.**—The skill of a merchant or tradesman is exhibited in the combination of the greatest profit with the least expense; and he will make the most money who calmly looks from "the beginning to the end," rather than be attracted by any intermediate point, however profitable it may appear.

#### AN INSURANCE CASE, WITH A MORAL.

The following story is so like Jacob Barker, that it might safely have been imagined of him, even if it had never been narrated of him, as having taken place. It has been often told in days past, but it will bear to be told again.

Mr. Barker was a large shipowner. He had many ships at sea, and as was the custom in those days—as well as at present—some of them would be lost. One of Mr. B.'s ships had been a long time out of port. Fears were entertained for her safety. Sharing the general anxiety, Mr. B. called at a marine insurance office, and expressed his desire to effect a fresh insurance on the vessel. The office demanded a high rate of premium. Mr. B. offered a lower figure. Without coming to any understanding Mr. B. left the office. That night, a swift messenger from New England, brought him news of the total loss of the vessel. He said simply "very well!" Next morning, as he drove down to his counting house, he stopped at the insurance office. He did not get out of his carriage, but calling the secretary from his seat, observed to him quietly:

"Friend, these need not make out that policy, I've heard of the ship!"

"Oh sir, but sir, Mr. Barker," stammered the cunning secretary, dashing back into the office, and re-appearing again in a moment, "we've made out the policy, and you can't back out of it!"

"How so, friend?" asked the old Quaker, very demurely.

"When you left last evening, we agreed to your proposal, and the policy was made out at once. The office became liable, and you must take it. See, here it is!" and a clerk at that moment brought out the policy, with the signatures hardly dry.

"Well, friend," said old Jacob plainly, "If thou wilt have it, I suppose I must take it!" and he put the policy into his pocket, and drove to his office. Before that evening the insurance company, and all the world had heard of the loss of the ship, and of the round sum with which the company stood self-mulcted.

#### MISCELLANEOUS.

If a merchant wishes his clerks to be faithful and attentive to his interests, he should take some care of the welfare of those in his employ. Any act of kindness, by which gratitude will be awakened, will go farther towards making a good clerk than a thousand severe, and sometimes irksome business precepts.

GIVE us the straight-forward, fearless, enterprising man of business—one of whom is worth a dozen of those who, when anything is to be done, stop, falter, hesitate, and are never ready to take a decided stand. One turns everything within his reach into gold; the other tarnishes everything that is bright.

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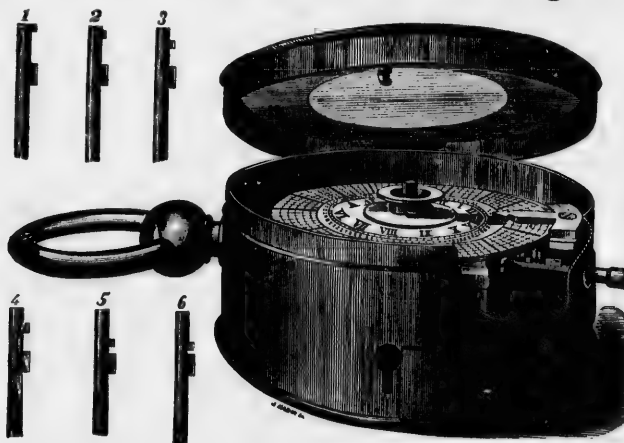
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# THE IMPROVED WATCHMAN'S CONTROL AND *Detective Clock!*

THE BEST PORTABLE CLOCK IN THE WORLD!

One Clock serves for Six Buildings or all Buildings in Six Streets.



*Wherever this Detective Clock is used, the Premium on Insurance can be reduced.*

Having been appointed Sole Agent by Mr. A. MEYER for his

## **Watchman's Control Clocks.**

I herewith beg to call your attention to this very useful and indispensable invention. This Clock is intended to detect any neglect on the part of the night-watchman while discharging his duties. I can therefore highly recommend it for additional protection to all large Establishments, Factories, Refineries, Distilleries, Breweries, Foundries, Tobacco Works, Warehouses, Elevators, &c., &c., particularly to Railway Stations, Prisons, Asylums, Forwarding and Shipping Merchants, Police Authorities, Banks and Hotels, this Clock will prove invaluable.

The Clock is of simple workmanship and fully guaranteed as represented.  
Send for Circulars and Price List.

**A. STEENCKEN,**  
**80 HOSPITAL STREET, - - - MONTREAL.**

# SMARDON & YOUNG.

Wholesale boot and shoe manufacturers were established in 1874. The factory and office are situated at 652 and 656 Craig street, main entrance to the office 656 Craig street. The buildings are of brick four storeys in height, and a visit to this enterprising house would convince any one that the dull times so much talked of by other houses, has not affected them in the least. As their shipping room had over one hundred cases marked ready for shipment to different towns all over the Dominion. The first floor is used as offices, sales room, and packing room. We then pass to the third floor, which is used for cutting, bottoming and peg work. The fourth floor is used as a fitting room. There is also over fifty sewing machines run by steam on this floor. The next floor is used as waxed thread and trimming room. We then pass out and enter No. 652 there the first floor is used as cutting room. There are a large number of men at this work, second floor is used as a finishing room and the style of work we saw in this department is equal to if not superior to any in Canada. Fifteen horse-power is used in this factory and going up stairs need not frighten any one as there is a steam hoist in the centre of the building that takes you from floor to floor by a gentle touch of the bell that rings out its melody to the ever watchful engineer in the basement. Over two hundred and fifty hands are employed in this establishment.

HAVE your property at all times fully insured. From a neglect of this caution, thousands are annually ruined. Insure at those offices that have the reputation of paying claims honourably and punctually, even if you give a higher premium.

It is related of Girard that upon a young trader, having bought and paid for a bag of coffee, proceeding to wheel it home himself, the shrewd old merchant immediately offered to trust his new customer to as many more bags as he might desire. The trait of character revealed in the young man had made his reputation with Girard. He became a favoured dealer with the millionaire, thrrove rapidly and amassed a fortune.

POLITENESS is the distinctive attribute of a gentleman—rudeness, of a boor. The man who is addressed with civility, and replies with rudeness, gives utterance to his innate brutality. The bear growls its characteristic utterances. Politeness has become a primary law in all eminent mercantile houses. It characterizes the intercourse of the Barings, Rothschilds, Saboucheres, and all of the most highly respectable houses.

DEBT is a perfect bore. How it haunts a man from pillar to post—lurking in his breakfast cup—poisoning his dinner—embitters his tea!—sours his domestic joys—and constantly stalks upon him like a living, moving skeleton recounting his liabilities. Keep out of it.

WHAT AN HONEST INSOLVENT DID.—Dr. Franklin relates the following anecdote of Mr. Denham, an Ame-

rican merchant, with whom he once went as a passenger to England. "He had formerly," he says, "been in business in Bristol, had failed in debt to a number of people, compounded and went to America; there, by close application to business, as a merchant, he acquired a plentiful fortune in a few years. Returning to England in the ship with me, he invited his old creditors to an entertainment, at which he thanked them for the easy composition they had favoured him with; and, when they expected nothing but the treat, every man, at the first remove, found under his plate an order on a banker for the full amount of the unpaid remainder with interest." We are afraid this race of men has died out.

## RANK OF THE PRINCIPAL STATES OF THE WORLD.

The following table exhibits the rank of the principal states of the world. First, according to population; and, second, according to territorial extent. It will be seen that Great Britain comes second in both cases, China being first in population and Russia in size:—

STATES.	Population at Last Census.	STATES.	Area in English Sq. Miles.
1 Chinese Empire.....	435,213,182	1 Russian Empire.....	7,961,320
2 British Empire.....	330,817,548	2 British Empire.....	4,077,438
3 Russian Empire.....	28,172,252	3 Chinese Empire.....	3,921,027
4 Germany.....	41,008,139	4 United States.....	3,693,564
5 United States.....	38,558,371	5 Brazil.....	3,100,114
6 France.....	36,400,873	6 Turkey.....	1,812,948
7 Austria-Hungary.....	30,394,435	7 Mexico.....	1,630,442
8 Turkey.....	20,550,000	8 Persia.....	648,000
9 Japan.....	35,000,000	9 Argentine Confederation.....	516,700
10 Italy.....	30,736,358	10 Peru.....	502,700
11 Spain.....	16,301,831	11 Bolivia.....	478,300
12 Spain.....	11,800,000	12 Colombia.....	432,400
13 Brazil.....	9,800,000	13 Venezuela.....	398,220
14 Mexico.....	9,175,000	14 Sweden and Norway.....	258,771
15 Sweden and Norway.....	5,005,548	15 Siam.....	250,000
16 Belgium.....	6,007,000	16 Chili.....	230,000
17 Persia.....	4,600,000	17 Austria-Hungary.....	228,400
18 Portugal.....	3,000,158	18 Morocco.....	210,000
19 Netherlands.....	3,010,166	19 Germany.....	212,001
20 Persia.....	3,190,000	20 France.....	201,000
21 Columbia.....	2,794,473	21 Spain.....	188,708
22 Morocco.....	2,765,000	22 Japan.....	156,604
23 Switzerland.....	2,000,174	23 Italy.....	112,617
24 Venezuela.....	2,200,000	24 Paraguay.....	17,800
25 Chili.....	1,089,801	25 Portugal.....	80,510
26 Bolivia.....	1,794,741	26 Greece.....	19,941
27 Denmark.....	1,748,862	27 Switzerland.....	10,528
28 Argentine Confederation.....	1,730,922	28 Denmark.....	14,565
29 Greece.....	1,657,804	29 Netherlands.....	15,064
30 Paraguay.....	1,300,000	30 Belgium.....	12,267

## MANITOBA.

A province of the Dominion of Canada, bounded on the S. by the United States, and on the N. E. and W. by the North West Territories of the Dominion. It extends from 49° to 50° 30' N. lat., and from 96° to 99° W. lon., and comprises an area of 14,340 square miles, or 9,177,600 acres.

The name Manitoba, taken from a large lake, a part of which lies in the province, is a contraction, made by the old French Canadian voyageurs, of the Cree word Manito-waban. Manito signifies supernatural, divine spirit; and waban means a strait. As the waters of a strait, in that lake are agitated in an unusual way, the Indians believed formerly there was therein something supernatural, a spirit that moved them, and so they called the lake Manitowaban.

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# SMARDON & YOUNG,

*Wholesale*

## Boot & Shoe

## MANUFACTURERS.

No. 652 & 656 CRAIG STREET,

Main Entrance, 656 Craig Street,

## MONTREAL.

RICHD. SMARDON.

JAS. A. YOUNG.



### THE BOOT AND SHOE TRADE.

The sudden rise and success of the boot and shoe trade is one of the greatest triumphs of manufacturers in Canada, and Montreal, as usual, is in the van, not so much in the number, but in the magnitude of her factories, the large amount of capital invested, the thousands to whom employment is afforded, and the immense value of the annual product. To form some idea of the importance to Canada of the boot and shoe trade we will first quote some statistics from the Census of 1871, by which it will be found that in the four Provinces of Quebec, Ontario, New Brunswick and Nova Scotia there were 4,191 factories, employing 18,729 hands, and paying yearly wages of \$4,169,856. The value of the raw material was \$7,927,155, and of the manufactured article \$16,133,638. Of this immense amount of trade Montreal does rather more than one third, although her factories only number 117. Employment is given by these factories to 2,891 males and 2,284 females, whose annual wages aggregate \$1,140,679. The value of the raw material is \$2,761,122, and of the manufactured article \$5,673,416. The value of the goods produced in Montreal was over \$650,000, more than the total amount produced in the whole Province of Ontario, the amount there being \$5,025,455. The great extent of this great industry in Montreal naturally leads us to consider how boots and shoes are made; and in order to get at some idea of the *modus operandi* we will take a walk together through the Mammoth establishment of Messrs. Stafford & Co., No. 6 Lemoine street, Montreal, and there find out as well as we can how boots and shoes are made by machinery. We stand in front of a handsome cut stone building, six storeys high, with a high basement. The building has a frontage of twenty-eight feet on Lemoine street, by a depth of sixty, and is most substantially finished throughout. Entering at the first floor we find the office, packing and shipping room, which is so filled with cases ready for transmission to all parts of the Dominion that navigation is rather difficult, and one is apt to get into a *cul de sac* of cases, unless he has the kindly guidance of Mr. Stafford to conduct him to the spiral iron stairs leading to the cellar, where the engine, boiler, stamper, skiver, roller, &c., are located. The engine is of ten horse power and furnishes ample force for running the various machines. This is the sole leather room; let us see what happens to a side of leather when it gets in here. It is first cut lengthwise and then passed to the stamper, who places it on a block of wood, over which is a steel knife, shaped like the sole of a shoe of the size required; the machine is run by steam, and by touching a lever a heavy pressure is brought on the leather, and a sole is stamped out; so rapidly is this done that sixty cases of five dozen each (or seven thousand two hundred soles) can be stamped by one man in a day. The soles are next taken to the skiver where the edges are trimmed and the bottoms

scraped, after which they pass through a roller to harden the leather and are then ready to be tied up in dozens, marked with the number of the sizes, and sent up stairs to be attached to the tops, a process we will describe by and by. Those portions of the leather which are too small to form a sole are cut for "clumps," or double soles, as they are more generally called outside of the trade. The little scraps or waste are used as fuel, and burn as well as coal, so that every part of the skin is utilized. Ascending to the office floor we take the steam hoist and are soon on the second flat, which is used as a cutting room for "uppers." Messrs. Stafford & Co. have all their work cut by hand, and some two dozen men or so can be seen at work cutting the calf skins, prunella, &c., which is to form the upper portion of the boot, shoe or slipper, as the case may be. These uppers are made up in packages of a dozen each, with linings, and sent out to be sewed together, there not being room in the building for the large number of hands necessary to perform this portion of the manufacture. Messrs. Stafford & Co. have three shops in the suburbs where sewing is done and furnish employment in that way to over two hundred hands, while about one hundred more are engaged in the various departments of the Lemoine street establishment. On the uppers returning they are taken to the pegging room on third floor, where the tops and bottoms are put together. In this room are three pegging machines which can peg over one hundred dozen pairs a day. This pegging machine is very curious, and some of our readers who wear pegged boots may be surprised to know that the pegs do not go into the machine as pegs at all, but in the form of a strip of thin wood, about ten feet long, sharpened on one edge and rolled up like the web of paper used in telegraph offices. The boot is put on a last, bottom up, when the machine punches a hole, cuts a peg from the strip and drives it in, and so rapidly that it does not take over a minute to peg a pair of boots. These strips of wood are imported from the United States, as the manufacture in Canada has never been successful. From the pegger the boots next pass to the bottomer, then to the heeler, and finally to the finisher, where they are completed, with one exception. Nearly every one who has worn pegged boots has, at some time or other, had one where some of the pegs came through the inside of the sole and made it very uncomfortable walking; this is, to a great extent, obviated by the peg-breaker who scrapes the inside of each boot on a rough sort of file, such as is generally found in retail shoe stores. The fourth story is devoted to machine sewing and is furnished with one of McKay's patent machines for soling, which is capable of turning out about ten cases of five dozen each a day. The process is similar to pegging. We next reach the fifth flat, which is used as a stock room for long boots; and ascending for the last time reach the sixth story, which is used for treering and finishing, blacking, &c. We once more get into the hoist and descend to the first flat,

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# W. STAFFORD & CO.,

Wholesale Manufacturers of

## ROOTS AND SHOES,

No. 6 Lemoine Street,

### *MONTREAL, P. Q.*

well pleased with our efforts to find out how boots and shoes are made, and feeling greatly obliged to the urbane proprietor, Mr. W. Stafford, for his courtesy in showing us through the premises and his efforts to convey some idea of "how the thing was done" to our obtuse understanding. The establishment has three foremen, Messrs. Bellemere, Cadieux and Leonard.

#### SHEARER'S, MILLS.

James Shearer, manufacturer of doors, sashes, blinds, mouldings, architraves, and all kinds of house finishings. Steamboat cabin work prepared and fitted up in the most modern style steering wheels, &c., &c. Established in 1852.

The factory and office are situated at St. Gabriel Locks, Montreal. The buildings are built of brick, four storeys in height, and are the largest and finest factory buildings at St. Gabriel Locks. There is also a steam saw mill in connection with the factory, and every thing to make it one of the most complete establishments of the kind in Montreal. The firm do an extensive business, giving employment to one hundred and fifty men. Their buildings are numerous also lumber yards, &c., all of which cover over nine acres of ground. Steam and water-power are used in the factory.

The agricultural capabilities of its soil cannot be exceeded for many things. The most part of the province is prairie land perfectly level and diversified by groups of elm, ash, oak, poplar, basswood, and ash-leaf maple, (*negundo frosi ni folia*.) It is a rich, black mould resting partly on a limestone formation and partly on a thick coat of hard clay. Manure, not indispensable at first, is as useful here as elsewhere. It has not been used much so far, on account of the large amount of land possessed by each of the inhabitants, which circumstance enables them to sow the same grain for several years running. Wheat ripens in 110 days and gives an average return of 20 to 25 bushels to the acre. All kinds of garden vegetables, as well as oats, barley, Indian corn, hops, flax, hemp, potatoes, and other root crops are easily raised. The grassy savannas of Red River afford unlimited pasturage ranges, as long as unploughed,

The climate of Manitoba, though very severe in winter, is nevertheless occasionally hot in summer. The mean for the three winter months of December, January and February, is 5° below°; and for the summer months June, July and August, 65°. Though the winter is extremely cold, it is mitigated by a clear, dry atmosphere. A population more healthy than the Manitobans cannot be met anywhere.

The province is entirely level, and so much so that it is void of any scenery whatsoever.

The principal rivers are the Assiniboine, 480 miles long, and Red River, 665 miles long, 525 of which are in the United States. The largest lakes (only a part of which, however, are in Manitoba) are Winnipeg, 280 miles long

and 5 to 57 miles wide, and Manitoba, 110 miles long and 25 wide.

Manitoba is divided into four electoral districts for Dominion elections, viz: Selkirk, Provencher, Lisgar, and Marquette, each of which sends 1 member to the House of Commons.

Winnipeg is the capital of the province. Fort Garry (the mercantile establishment of the Hon. Hudson's Bay Company) is the temporary residence of the governor, while the government departments are in Winnipeg, a small but rapidly growing town which includes Fort Garry in its limits. There are two bishops in the province: the Archbishop of St. Boniface (Roman Catholic), residing at St. Boniface, eastside of the Red River, facing Winnipeg and Fort Garry; and the Lord Bishop of Rupert's Land (Church of England), residing at St. John, below Winnipeg, west side of the Red River.

The public affairs are administered by a Lieutenant Governor, an Executive Council of six members, a Legislative Council of seven members, appointed for life, and a Legislative Assembly of twenty-four members, elected every four years. Justice is dispensed by a Chief Justice and two puisné judges.

There are four religious denominations in Manitoba. The Roman Catholics are the most numerous. They have a cathedral and ten churches, and about 3,000 adherents. The Episcopalians have a cathedral, fourteen churches, over nine hundred communicants and about fourteen clergy. The Presbyterians have four churches and four preaching stations. The Wesleyan Methodists are as yet numerically small, but making steady progress. There are also small groups of Baptists and some Unitarians.

The province is well provided with educational institutions. It has three colleges, St. John's (Church of England), St. Boniface (Roman Catholic), and Kildonan (Presbyterian,) a Convent, three Protestant Ladies' Schools, and forty common schools, twenty amongst the Protestants and twenty amongst the Roman Catholics. The Sisters of Charity from Montreal have a large Convent at St. Boniface an academy for young ladies, an orphanage, and four missions in the province. The school system established by law is entirely denominational or separate.

In 1872, telegraphic communications was established between Manitoba and the United States.

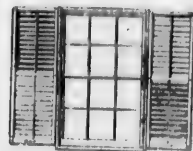
Steamers ply on Red River, between Fort Garry and Moorehead, Minnesota, a station of the American Northern Pacific Railway, on the Red River.

Fort Garry is now reached by way of St. Paul, Moorehead and Pembina; also by the Dawson or Canadian route from the head of Lake Superior. Distant from Montreal 1,586 miles. When the Canada Pacific Railway is built this distance will be reduced to 1,260 miles.

Every bona-fide settler receives a homestead or a free grant of 160 acres of land.

This section of North America was first visited by the French Chevalier de la Vérandrye built a fort at the

# Shearer's Mills.



**ST. GABRIEL LOCKS,  
LACHINE CANAL,  
MONTREAL.**

MANUFACTURER OF

**Doors, Sashes, Blinds, Mouldings,  
Architraves,**

AND ALL KINDS OF

**HOUSE FINISHING.**

**STEAMBOAT CABIN WORK**

Prepared and Fitted up in the most Modern Style.

**STEERING WHEELS,**

*&c., &c., &c.*

**N.B.---All kinds of SAWN LUMBER constantly  
on Hand.**

# GLOBE WORKS.

Messrs. Skinner & Co., manufacturers of scythes, snathes, hames of all kinds, grain cradles, and pea harvesters, were established in 1830, and is one of the oldest manufacturing establishments of the kind in the Dominion. Their factory is situated at the confluence of the St. Lawrence and Chananogue Rivers, covering about two acres of ground and giving employment to some thirty or forty hands.

mouth of the Assiniboine in 1731. The French continued to trade there alone for many years, but in 1767 the first English traders visited it, and soon several rival companies were in operation. These finally dwindled into the famous North West Company, which in its turn was absorbed by the Hudson's Bay Company, chartered by King Charles II in 1670. The latter company having sold a tract of land to the Hon. Thomas Douglas, Earl of Selkirk, on both sides of the Assiniboine and of the Red River, his lordship planted there, in 1812, a colony known by the name of Selkirk Settlement, Red River Settlement, or also Assiniboia. In 1836 the Hudson's Bay Company repurchased from the heirs of Lord Selkirk the same tract of land ceded to his lordship in 1811, and continued to exercise authority over that portion of Rupert's Land by the appointment of the Governor and Council of Assiniboia, which, in course of time, especially after the settlers had declared independence of trade in 1849, formed a rather independent administration for the local affairs in the colony, the limits of which extended but fifty miles around Fort Garry. It is that colony that now forms the greatest part of the new province of Manitoba.

The Hudson's Bay Company never claimed any proprietary rights on the North West Territories proper. These territories formerly included nothing but the lands east of the Rocky Mountains, watered by the rivers running towards the Arctic Sea. The Charter of the Company merely included Rupert's Land, *i. e.*, the lands watered by the tributaries of Hudson's Bay.

These two immense portions of country outside of the province of Manitoba are now known by the same name of North West Territories.

In March, 1869, the Hudson's Bay Company agreed to hand to the Imperial Government their territorial rights and governing responsibilities, and on the 16th of July, 1870, England handed the whole to the Canadian government. It was during that period that the Red River trouble took place. The transactions between England and Canada, as well as the Hudson's Bay Company, having been made without consulting and even paying any attention to the government and people of Assiniboia, a deep feeling of uneasiness arose, and the Canadian authorities coming into the country before the transfer, met resistance. In the meantime a provisional government was formed by the settlers to secure their rights and come

to an agreement with the Dominion of Canada, delegates were sent to Ottawa for that purpose and treated with the proper authorities. England urged the Ottawa Government to satisfy the people of Red River. Then the Bill of Manitoba and other guarantees were agreed to, and thereby the entry of Manitoba into the Confederation was effected.

The first missionary known as having visited the country is the Rev. Père Messager, who accompanied Chevalier de la Vérandrye in 1731. At the time of the Conquest the Catholic missions were abandoned; they were resumed, in 1818, by the Revs. J. N. Provencher and S. N. Dumoulin, from Quebec.

The Rev. J. N. Provencher was consecrated bishop of Juliopolis in 1822, and afterwards nominated bishop of St. Boniface. That see was created an Archbishopric in 1871, and is now occupied by the Most Rev. Alexandre Taché, D.D.

A Church of England bishopric was created in 1849. Rev. David Anderson was the first bishop of Rupert's Land, and was succeeded by the Right Rev. Robert Machray, D.D.

## RIVAL ROUTES TO THE EAST.

Competition has begun in earnest between the rival routes from Western Europe to the East; India, China, Japan, and the Australian Colonies. There appears good reason to believe that a large portion of the travel, and even traffic with these countries, will eventually pass over the American continent. At present, the Australasian and American Steamship Company despatch vessels regularly every month, for Australia; and the Pacific Mail line, and the China Trans-Pacific Company send three vessels per month to China and Japan. When our own Canadian Pacific Railroad is finished, there will, undoubtedly, sooner or later, be established lines of steamships from Victoria, British Columbia, to these countries of the Orient, and the attractions of the American route will be greatly increased. In fact, there is reason to hope that the Canadian route will be the shortest, cheapest, and most expeditious to India, China, and Japan, and consequently become the favourite. The advantages of the present American route over that by the Suez canal are said to be as follows:

To	DISTANCES, TIMES, AND FARES.					
	Via Suez Route.			Via American Route.		
	Miles.	Days.	Fare.	Miles.	Days.	Fare.
Yokohama	11,208	56	£103	11,382	54	£72
Shanghai	10,518	53	103	13,623	47	82
Hong Kong	9,648	48	93	13,062	40	82
Auckland	13,259	62	102	12,290	44	83
Sydney	11,599	57	88	13,220	47	85
Melbourne	11,439	56	88	15,780	48	87

A MILLIONAIRE'S MAXIMS.—The New Orleans millionaire, John McDonough, had the following engraved on his tombstone as the maxims which led him to riches and honour. "Remember always that labour is one of the conditions of your existence. Time is gold, throw not

GLOBE WORKS,

Gananoque, Ontario.

SKINNER & CO.,

MANUFACTURERS OF

SCYTHES & SNATHS,

*Hoes of all kinds,*

*Grain Cradles,*

AND

PEA HARVESTERS,

Send for Price List and Circulars.



## THE VICTORIA WRINGER WORKS.

Brockville, Ont., J. R. Smith, manager, was established in 1874. The factory and office are situated on Kincade street, in the town of Brockville, adjacent to Smart & Shepherd, extending to the River St. Lawrence. The building is of frame, two and a half storeys in height, forty feet square. The firm make wringers and sweepers a specialty, which are shipped all over the Dominion. From twelve to fifteen men find employment in this enterprising establishment, using ten horse steam power.

### H. T. SMITH.

The factory of Mr. H. T. Smith for making soda water machinery and soda water fountains of all kinds, as well as brass founding, steam fitting, &c., was established in 1858. The factory and office is at 11 and 13 Elizabeth st., Toronto. The factory is built of brick, four storeys in height, having a frontage of 40 feet by 130 deep, using thirty horse steam power. This is the only soda water machine manufactory in the Dominion, and make both the English and American style, and are equal in style and finish to any foreign soda water machine. Some of them are now on exhibition at the Centennial, Philadelphia. Twenty men find employment in this establishment.

one minute away, but place each to account. Do unto all men as you would be done by. Never put off till tomorrow what can be done to-day. Never bid another do what you can do yourself. Never covet what is not your own. Never think any matter so trifling as not to deserve notice. Never give out that which does not first come in. Never spend but to produce. Let the greatest order regulate the transactions of your life. Study in your course in life to do the greatest amount of good. Deprive yourself of nothing necessary to your comfort, but live in an honourable simplicity and frugality, labour then to the last moment of your existence."

Follow your business closely, and it will lead you to honor and wealth.

Credit should be given sparingly, and integrity be the basis of it.

A common inscription in front of the Neapolitan wine and macaroni houses is, "Domani si fa credenza ma aggi no," which being translated is: "To-morrow we give credit, but not to-day."

An editorial notice of a woman's grocery store read as follows: "Her tomatoes are as red as her own cheeks; her indigo as blue as her own eyes, and her pepper as hot as her own temper."

"A little word in kindness spoken,  
A motion or a tear;  
Has often healed a heart that's broken  
And made a friend sincere."

A wealthy merchant having experienced some hard

reverses which caused his bankruptcy, was met some time after his misfortune by a friend, who enquired how he was getting on? "Pretty well" said he, "I am on my legs again." "How? Already?" "Yes, I have been obliged to part with my coach and horses" and now have to walk.

A genuine scoundrel is a man who, by professions of sanctity, obtains credit, and who, with all his religious professions, keeps back property from his legitimate creditors.

Undue haste to be rich is urged as the primary cause of half the failures. A resort to speculation will probably take most of the balance. A legitimate business, carefully attended to, rarely fails to secure a profit.

**FEMALES AS CLERKS.**—The employment of ladies in retail dry goods stores is becoming very general. And it is a business they can do better than men. They are more active and expert in handling dry goods, more tasteful in folding and arranging them, more polite and conciliatory to customers, and have better taste in all matters relating to dress. On the other hand, young men should be employed in more active and manly labor. Measuring off calicoes and tape is too light a task for their physical constitution. We are decidedly in favor of this branch of woman's rights being conceded to them. It would give employment at good wages to a great many young ladies, and would be degrading to none willing to earn a living

## CITIES OF CANADA.

The population of the cities of Canada in 1871, with the ratio of increase during the previous decade, were as follows:—

	POPULATION.	INCREASE.
Montreal, Q.....	117,225	18.7 per cent.
Quebec Q.....	59,099	do
Toronto, Ont.....	56,002	25.1 do
Halifax, N. S.....	25,582	18.3 do
St. John, N. B.....	25,088	30.0 do
Hamilton, Ont.....	25,716	39.9 do
Ottawa, Ont.....	21,545	46.9 do
London, Ont.....	15,836	36.9 do
Kingston, Ont.....	13,407	do
Charlottetown, P. E. I.....	8,807	31.3 do
Three Rivers, Q.....	7,579	24.9 do
Fredericton, N. B.....	6,006	34.3 do

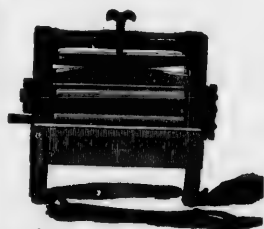
## THE GOVERNMENT OF CANADA.

### THE GOVERNOR-GENERAL AND STAFF:

Governor-General—His Excellency the Right Honorable Sir Frederick Temple, Earl of Dufferin, Knight of the Most Illustrious Order of Saint Patrick, and Knight Commander of the most Honorable Order of the Bath. Born 21 June, 1826. Educated at Eton College and Christ Church, Oxford. Married 23 October, 1862, Harriot Georgina, eldest daughter of Archibald Rowan Hamilton, Esq., of Killyleah Castle, County Down. Succeeded as 5th Baron Dufferin and Claneboye, in the Peerage of Ireland, on the death of his father, 21 July, 1841. Created Baron Claneboye of the United Kingdom, 1860; an

# VICTOR WRINGER CO., BROCKVILLE, ONTARIO.

*J. R. SMITH, Manager.*



The VICTOR  
Wringer is a first-  
class machine, re-  
quiring only one-  
half the power to  
turn of other  
wringers, a child  
can wring a bed  
quilt with the Victor as easily as a towel  
by other wringers, and is geared upon both  
ends so that no strain comes upon the  
clothes.

The VICTOR  
Carpet Sweeper is  
acknowledged by  
the thousands that  
are using it to be  
the best in use, is  
got up in the best  
of style, doing away with dusting,  
&c.



**Send for Circular.**

## H. T. SMITH,

*MANUFACTURER OF*

### Soda Water Machinery & Fountains

*Of Every Description,*

### BRASS FOUNDER, PLUMBER,

*STEAM and GAS-FITTER,*

AND PROPRIETOR OF THE

### TORONTO STEAM SODA WATER MANUFACTORY.

**11 and 13 Elizabeth Street, . . . TORONTO,  
ONTARIO.**

Earl of Dufferin and Viscount Clandeboye both of the United Kingdom), 1870. Was a Lord in Waiting to the Queen, from 1849 to 1852, and from 1854 to 1858; attached to Earl Russell's special mission to Vienna, February, 1855; British Commissioner in Syria, 1860; Under Secretary of State for India from 1864 to 1866, and for War, from 1866 to following year; and Chancellor of the Duchy of Lancaster and Paymaster-General, from 1868 to 1872. Appointed Lord Lieutenant of the County Down, 1864; and Governor-General of the Dominion of Canada, 22 May, 1872. (Salary, £10,000 stg.) Is Honorary Colonel of the North Down Rifles. Author of "A Tour in Ireland during the Famine," 1847; "Letters from High Latitudes," 1867; "Irish Emigration, and Tenure of Land in Ireland," 1867; "Notes on Ancient Syria," 1867; "An Examination of Mr. Mill's Plan for the Pacification of Ireland," 1868; "Enquiry into the State of Ireland," 1869. Residences:—"Clandeboye," Holywood, County Down, Ireland; "Rideau Hall," New Edinburgh, Ottawa; Citadel, Quebec.

#### STAFF:

*Secretary of the Governor-General.*—Lieutenant Colonel the Honorable Edward George Percy Littleton, Grenadier Guards. Eldest son of the second Baron Hatherton, by Lady Margaret Percy, youngest daughter of George, fifth Duke of Northumberland. Born 15 August, 1842. Educated at Eton College. Married Charlotte Louisa, daughter of Sir Charles Rowley, Baronet, and the Honorable Lady Rowley, of Tendring Hall, Suffolk, England. Entered the army, 1861, and was in Canada with the Brigade of Guards, from January, 1862, to September, 1864. Is a Deputy Lieutenant and Justice of Peace for County of Staffordshire. Has been Superintendent of the Military Gymnasia, London, England; Instructor of Musketry to 2nd Battery Grenadier Guards; and Regimental Adjutant to the Grenadier Guards. Appointed to present office, 27 October, 1875. (Salary, \$2,400).—"Rideau Cottage," New Edinburgh; Travellers' Club, Pall Mall, London, England; Guards' Club, do do; Eastern Departmental Building, Ottawa.

*Military Secretary.*—Lieutenant Colonel the Honorable Edward George Percy Littleton, Grenadier Guards. Appointed to present office, 27 October, 1875. Same addresses as above.

*Aide-de-Camp.*—Frederick T. Rowan Hamilton, Esquire, Lieutenant, 9th Regiment. Entered the army, 1868. Served at the Cape of Good Hope from May, 1868, till September, 1870. Appointed Aide-de-Camp, 28 October, 1872.—"Rideau Hall," New Edinburgh; Eastern Departmental Building, Ottawa.

*Aide-de-Camp.*—Robert Frederick Ward, Esquire, Lieutenant (retired), R.N. Captain, North Down Rifles Militia. Entered the Royal Navy December, 1859. Served as Midshipman in H. M. S. *Nile*, bearing the flag of Vice-Admiral Sir Alexander Milne, K. C. B. on the North American and West Indian Station, from, January, 1861, to March, 1864; as Midshipman and Sub-Lieutenant in

H. M. S. *Hector* in Channel Squadron, from June, 1864, to March, 1867; as Sub-Lieutenant in H. M. S. *Minotaur*, bearing the flag of Rear-Admiral F. Warden, C. B., Commanding Channel Squadron, from May to June, 1867; as Sub-Lieutenant in H. M. Royal Yacht *Victoria* and *Albert*, from June to August, 1867; promoted to rank of Lieutenant 23 August, same year, and served in that rank in H. M. S. *Minotaur*, bearing the flags of Rear-Admiral F. Warden, C. B., and Vice-Admiral Sir Thos. Symonds, K. C. B., Commanding the Channel Squadron, from January, 1868, to June, 1870; retired on a pension, December, 1871. Appointed Captain Royal North Down Rifles Militia, January, 1874; appointed Aide-de-Camp 24 October, 1873. Accompanied General Smyth in his journey across the Continent, 1875.—"Rideau Hall," New Edinburgh; Eastern Departmental Building, Ottawa.

*Extra Aide-de-Camp.*—Lieutenant Colonel Hewitt Bernard, C. M. G., Major late Civil Service Rifle Volunteers. Entered Volunteers Service as Lieutenant, November, 1855; appointed Captain, 1857; Major, 1860; Deputy Judge Advocate General 1860; Lieutenant Colonel (unattached), 1865; extra Aide-de-Camp to Governor-General, Canada, January, 1865; gazetted do to Governor-General of the Dominion, October, 3, 1868; appointed by H. M. the King of Spain a Knight Commander of the Order of "Isabel la Catolica," 1872; appointed by the Queen a Companion of the Order of St. Michael and St. George, same year; is Deputy of the Minister of Justice of the Dominion, and a Queen's Counsel.—Metcalf St., Ottawa; Rideau Club, do; British Service Club, St. James' London, England.; Eastern Departmental Building.

*Extra Aide-de-Camp.*—Lieutenant-Colonel Frederick William Cumberland, C. E., late Colonel 10th "Royals" (Volunteers,) Toronto. Represented Algoma in Canada House of Commons, from 1871 until dissolution, 1872; and same seat in Ontario Assembly, from 1867 until general election, 1875. Appointed Extra Aide-de-Camp to Governor General, Canada, January, 1865; gazetted do. to do. of Dominion, 3 October, 1868.—"Pendavis," Toronto; Toronto Club; Rideau Club.

*Private Secretary.*—Walter Reginald Baker, Esq. Appointed to present office, May, 1874.—33, Stewart Street, Ottawa.

#### MINISTER AT WASHINGTON.

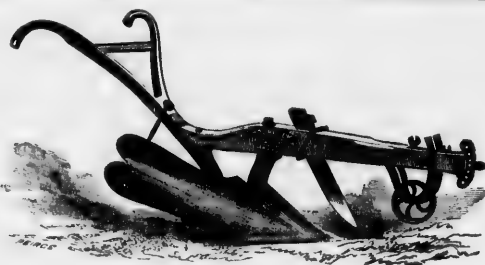
*Envoy Extraordinary and Minister Plenipotentiary of Great Britain at Washington.*—Right Hon. Sir Edward Thornton, K.C.B.—1637, 1st Street Washington.

*Secretary of Legation.*—R. G. Watson, Esq., 723, 15th Street, Washington.

#### THE QUEEN'S PRIVY COUNCIL FOR CANADA.\* (Ministry formed, 7 Nov., 1873.)†

*President of the Council.*—Hon. Joseph Edouard Cauchon.

\* The salary of each Minister is fixed by statute at \$7,000, the Minister holding the recognised position of Prime Minister to receive an additional \$1,000.



THE  
**SMITH-ELKINS MANUFACTURING COMPANY,**  
 Beg to inform their numerous customers and the public generally, that they are  
 manufacturing and have on hand a large and varied assortment of  
**PLOWS, CULTIVATORS AND SEED MOWERS,**

Which they are anxious to sell at reasonable prices, and having made several valuable changes, such as putting STEEL MOULD-BOARDS to all their Plows and enlarging the Points, and using the best timber for Beams and Handles, they are confident that they can supply

*A Better and a Cheaper Plow*

than any other establishment in the Province of Quebec.

LIST AS FOLLOWS, VIZ.:

No. 1 Woolly, with Cast or Steel Mouldboard.

No. 2 Woolly, do do do

Little Assumption, with Cast or Steel Mouldboard.

Oshawa, with Steel Mouldboard.

Side-Hill, of latest improved American Pattern, just imported, for side-hill or flat ground Plowing.

Our Plows are kept for Sale at Our Prices by Messrs. CHARLES BROKES & SONS, LENNOXVILLE; M. BLOSSOM, Esq; of COMPTON; F. M. POPE, Esq; of BURY; S. C. BISHOP, DUDSWELL; C. J. LIBRY, AYERS' FLAT, STANSTEAD, Messrs. CODERE & BOUCHER, of this City, and in a great variety together with all Plow Repairs at our shops, Plows repaired without delay. For particulars address

**SMITH-ELKINS MANUFACTURING COMPANY,**  
**SHERBROOKE.**

ALSO:

**Steam Engines Band Saws, Planing Machines, and Board Mills,**  
**LATH & CLAP BOARD MACHINES.**

*All Kind of Machinery made to Order.*

Woolley Plows, with steel Mould-Boards; Little Assumption Plows, with steel Mould-Boards; Oshawa Plows, (Iron Frame) with steel Mould-Boards, Wood Grates, for Fire Places, Pulleys, Shafting, Fancy Register, Assorted Sizes, all kinds Mill Gearing, and generally Job Work.

# TEES BROTHERS.

The furniture and coffin factory of Messrs. Tees Brothers, Montreal, is one of the oldest and largest of its kind in the city, having been established in 1854, and giving steady employment to seventy-five men, while in busy times the number runs up to one hundred and fifty or more. The factory is situated at St. Gabriel Locks on the Lachine canal, is built of brick, four storeys high, and is one hundred feet by sixty. Both steam and water power are used, the former being mostly kept as a reserve for winter use, or when the water in the canal is low. The warerooms and offices are at No. 447 Notre Dame street, and consist of a fine stone building, having a frontage of forty-five feet by a depth of ninety. The first floor is used as general show-room and office, and here samples of all styles of furniture can be seen. The second floor is used as a show-room for upholstered furniture, and parlor and bed room sets. Almost all the parlor sets are of walnut, handsomely and tastefully upholstered in reps and velvets, of various colours, hair cloth, &c. The dining room sets are of walnut, oak and other woods, and are finely finished. The chairs, especially cane bottoms, are in great variety of style and are unexcelled in finish, as Messrs. Tees make a specialty of the manufacture of chairs, and all varieties, from the infant's little toy rocker to the invalid's comfortable arm chair, can be found there. The third floor is devoted to the display of office desks and coffins, the varieties of which are very numerous. Messrs. Tees are the largest manufacturers of office desks in the Dominion, and make some of the most costly and elaborate work on the continent. We noticed some exceedingly handsome desks which were locked by one key, that is, not by one key fitting all the locks, but by one lock, locking or unlocking all the other drawers, as the key in the centre one was turned. On this floor is the coffin ware room where there is a large display. This firm is the only one in the Dominion manufacturing iron caskets, a branch of the undertaker's business which they have been in for about ten years. The fourth flat is used for finishing and varnishing the goods as they come from the factory. Messrs. Tees have long been known as amongst the leading wholesale furniture manufacturers of Montreal, but have only lately added a retail department to which we advise those about to furnish to pay a visit before purchasing elsewhere.

*Minister of Public Works.*—Hon. Alexander Mackenzie (Prime Minister.)

*Minister of Justice and Attorney General.*—Hon. Edward Blake, Q. C.

*Minister of Marine and Fisheries.*—Hon. Albert James Smith, Q. C.

*Minister of Finance.*—Hon. Richard John Cartwright.

† The Government of Sir John A. Macdonald existed from 1 July, 1867, until its resignation, 5 Nov., 1873.

*Minister of Agriculture and Commissioner of Patents.*—Hon. Luc Letellier de St. Just, N.P.

*Minister of the Interior.*—Hon. David Laird.

*Minister of Customs.*—Hon. Isaac Burpee.

*Receiver General.*—Hon. Thomas Coffin.

*Secretary of State and Registrar General.*—Hon. Richard William Scott, Q. C.

*Postmaster General.*—Hon. Lucius Seth Huntington, Q. C.

*Minister of Inland Revenue.*—Hon. Felix Geoffrion, N. P.

*Minister of Militia and Defence.*—Hon. William Berrian Vail.

## CLERK OF THE QUEEN'S PRIVY COUNCIL.

William Alfred Hinmworth, born 28 August, 1820. Served as Clerk in the Commissariat, 1838 to 1842. Called to the Bar in Lower Canada, 1841. Clerk in Legislative Assembly, Canada, 1842-43. Appointed Clerk in Executive Council Office, 1843, and Assistant Clerk of the Council, 1851. Sworn in as Clerk of the Queen's Privy Council for Canada, on 1st July, 1872. (Salary, \$3,200.) Was Secretary to the "Confederate Council on Commercial Treaties" which sat at Quebec, 1864. Is Deputy Governor for signing money warrants; a Commissioner *Ad interim* *Potestatem*; a Commissioner in the Queen's Bench for Ontario; and a Justice of the Peace for the County of Carleton.—123 Daly Street; Eastern Departmental Building.

## MEMBERS OF THE PRIVY COUNCIL, WHO ARE NOT NOW MEMBERS OF THE CABINET.

The Right Hon. Sir John Alexander Macdonald, K.C.B., D.C.L., (Oxon), LL.D., Q.C., M.P.

Hon. Samuel Leonard Tilley, C.B., Lieutenant-Governor of New Brunswick.

Hon. Sir Alexander Tilloch Galt, K.C.M.G., D.C.L.

Hon. William Macdougall, C.B., M.P.P.

Hon. William Peace Howland, C.B.

Hon. Adams George Archibald, C.M.G., Q.C., Lieutenant Governor of Nova Scotia.

Hon. Peter Mitchell, M. P.

Hon. Alexander Campbell, Q.C., Senator.

Hon. Hector Louis Langevin, C. B., Q. C.

Hon. Jean Charles Chapais, Senator.

Hon. Sir Edward Kenny, Knight, Senator.

Hon. Sir John Rose, Bart., K.C.M.G.

Hon. Sir Francis Hincks, K.C.M.G., C.B.

Hon. Alexander Morris, D.C.L., Q.C., Lieutenant-Governor of Manitoba and of the North West Territories.

Hon. Christopher Dunkin, D.C.L., Q.C.

Hon. James Cox Aikins, Senator.

Hon. Charles Tupper, C.B., M.D., M.P.

Hon. John Henry Pope, M.P.

Hon. John O'Connor, Q.C.

Hon. Theodore Robitaille, M.D., M.P.

Hon. Thomas Nicholson Gibbs.

Hon. Hugh McDonald, Q.C.

**TEES BROTHERS,**  
*Furniture Manufacturers*

AND

**UNDERTAKERS,**

**Office**  
AND  
**Store,**  
SIX DOORS EAST



**449,**  
**Notre Dame**  
**Street,**  
OF MCGILL ST.

**FURNITURE FACTORY, ST. GABRIEL'S LOCKS**

We keep constantly on hand a full assortment of all kinds of Furniture,

**BEDROOM AND PARLOUR SETS,**  
**DINING & CENTRE TABLES,**  
**WARDROBES,**

And a general assortment of **ASH** and **WALNUT** FURNITURE, at  
WHOLESALE AND RETAIL ; also

**OFFICE DESKS AND CHAIRS,**

OF THE LATEST DESIGNS.



# UPPER CANADA FURNITURE COMPANY.

This Company was established in 1866. The office and factory are situated in the town of Bowmanville, Ontario. The factory is built of brick, four storeys in height, 160 x 40. The finishing shop is two storeys in height, 100 x 40. The wareroom is two storeys in height, 66 x 140. The drying house is a large building; also varnish magazine and other buildings too numerous to mention; in all, the buildings and lumber yard cover about three acres of ground. The Company's offices are built of brick and are very neatly arranged. Among these is the private office of Mr. McArthur who is president of the Company, and on making known our business to him we were kindly conducted through the whole great building and must say that we were somewhat taken by surprise as we did not expect to see or find a furniture factory of such magnitude in the Dominion. The Company manufacture all styles and finish in the furniture line, and a visit to the wareroom is very interesting, as here is to be seen some of the most costly and well finished furniture that mechanical skill can produce. The factory is well supplied with all the most approved machinery, and in case of fire, which is liable to occur in all such large establishments the Company has a steam pump constructed with their engine house, and keep constantly in readiness a good supply of hose sufficient to reach to any part of the building, and while we were in the engine room the engineer attached the hose to the steam fire engine and in less than two minutes had a stream thrown across the buildings. This is something that Insurance Companies should insist upon being kept in all manufacturing establishments. The company employ over two hundred men and use sixty horse steam power. It is unnecessary to say that the furniture manufactured here is sold all over the Dominion.

Hon. Antoine Aime Dorion, Q.C.

Hon. Donald Alexander Macdonald, Lieutenant-Governor of Ontario.

Hon. David Christie, Speaker of the Senate.

Hon. Telesphore Fournier, Q.C., one of the Justices of the Supreme Court of Canada.

Hon. William Ross.

**INSECTS AS A BRANCH OF COMMERCE.**—Great Britain does not pay less than a million of dollars annually for the dried carcasses of a tiny insect—the cochineal. Gum shellac, another insect product from India, is of scarcely less pecuniary value. A million and a half of human beings derive their sole support from the culture and manufacture of silk, and the silkworm alone creates an annual circulating medium of between \$150,000,000 and \$200,000,000. Half a million of dollars are annually spent in England alone for foreign honey; ten thousand hundred weight of wax is imported into the country

every year. Then there are the gall-nuts of commerce, used for dyeing, and in the manufacture of ink, etc., whilst the cantharides, or Spanish fly, is an important insect to the medical practitioner.

**PERSEVERANCE MUST BRING SUCCESS.**—It is related of Tamerlane, the celebrated warrior, the terror of whose arms spread through all the eastern nations, and whom victory attended at almost every step, that he once learned from an insect a lesson of perseverance which had a striking effect upon his future character and success. When closely pursued by his enemies, he took refuge in some old ruins, where, left to his solitary musings, he espied an ant struggling and trying to carry a single grain of corn. Its unavailing efforts were repeated sixty-nine times, and at each time, as soon as it reached a certain point of projection, it fell back with its burden, unable to surmount it; but at the seventieth time, the ant bore away the spoil in triumph, and left the wondering hero re-animated and exulting in the home of future victory.

## DEBTS AND REVENUES OF THE PRINCIPAL STATES OF EUROPE AND AMERICA.

The following will be found a correct statement of the debts and revenues of the principal States of Europe and America, during the years which are given :

STATES.	Financial Year.	Debt.	Revenue.
<b>EUROPE.</b>			
		£	£
Austria-Hungary.....	1873	346,926,906	75,088,432
Belgium.....	1873	36,981,960	7,336,964
Denmark.....	1872	12,747,589	2,287,362
France.....	1873	745,706,082	100,040,804
Germany :			
Prussia.....	1873	67,356,837	31,508,530
Bavaria.....	1872	35,446,396	9,123,355
Württemberg.....	1872	16,964,133	2,030,046
Saxony.....	1872	17,247,169	2,062,937
Great Britain and Ireland.....	1872	784,972,102	76,908,770
Greece.....	1872	15,512,000	1,217,964
Italy.....	1872	360,907,401	61,933,401
Netherlands.....	1873	78,416,172	8,356,143
Portugal.....	1873	72,833,000	4,103,421
Russia.....	1873	375,706,000	68,109,285
Spain.....	1871	261,476,900	27,901,746
Sweden and Norway.....	1873	8,548,268	4,357,080
Switzerland.....	1872	8,855,866	1,026,200
Turkey.....	1873	215,000,000	19,488,375
<b>AMERICA.</b>			
Argentine Confederation.....	1873	15,036,303	3,321,334
Bolivia.....	1873	3,200,000	1,400,000
Brazil.....	1872	90,000,000	9,258,621
Canada, Dominion of.....	1872	24,480,038	5,963,566
Chile.....	1872	5,288,530	1,854,984
Colombia.....	1870	9,920,200	2,380,000
Honduras.....	1872	5,990,108	97,000
Mexico.....	1871	70,100,000	3,700,000
Peru.....	1872	40,720,000	5,898,235
United States.....	1873	446,896,508	56,471,540
Uruguay.....	1872	10,600,000	1,217,160
Venezuela.....	1872	20,000,000	878,520
Total for Europe.....		3,150,880,884	
“ America.....		751,241,197	
Grand Total.....		42,08,122,081	

## AREA AND POPULATION OF THE PROVINCES.

The growth of the population of the various provinces of Canada has been steady. In the year 1800 the total number of persons inhabiting them was estimated at

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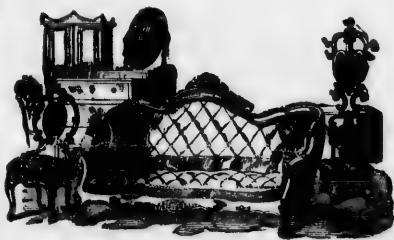
*Manufacturing Company,*

**Bowmanville, Ont.**

**The Upper Canada Furniture Company,**

Having purchased the Estate of the Bowmanville Furniture Company, are now prepared to fill orders for any class of Furniture.

The present Company have been fortunate in securing the Designers and Skilled Workmen formerly in the employ of the old Company, and are determined that the reputation of the Furniture manufactured by that company, shall not be lost by the present. New Styles have been got out this summer in



**BED-ROOM SUITES,  
PARLOR SUITES,**

AND

**Side Boards,**

That we believe are

**UNEQUALLED IN CANADA OR THE UNITED STATES.**

*Prices in all description of Chairs have been greatly reduced.*

Price List and Photographs supplied on application to

**The Upper Canada Furniture Company,**

**BOWMANVILLE, ONTARIO.**

## INHALATION OF DUST BY WORKMEN.

The injurious effect of exposure to the dust of various manufacturing establishments has not unfrequently been dwelt upon with more or less force; but we are hardly prepared for the result of certain specific investigations on this subject. It has long been a disputed point whether the particles of iron, silica, etc., merely lodge within the air-cells of the lungs, or penetrate through their walls into the tissue between them. But Professor Zenker informs us that, on examining the lung of a woman who had been exposed to the dust of iron oxide, used in preparing books of gold-leaf, he found the powder in the tissue between the air-cells and in their walls, as well as in their cavities. From less than two ounces of this lung over twelve grains of iron oxide were obtained by chemical methods; so that, if equally distributed through both lungs, there must have been at least three-quarters of an ounce inhaled. In another case—that of a workman exposed to the dust of a mixture used in preparing ultramarine substances—he found a quantity estimated at fully an ounce.

## BORAX FOR EXTERMINATING COCKROACHES.

Among the many applications of borax recently made, one of the latest is in the extermination of cockroaches, which purpose it is said to answer very perfectly, although we are inclined to doubt it. Half a pound, finely pulverized and scattered about where these disagreeable pests frequent, will, it is said, clear an infested house so thoroughly that the appearance of one in a month is quite a novelty. It is not known upon what peculiar influence of the borax this depends; but we are assured that the facts are as stated. One advantage of this application is the harmless nature of the borax, so that there is no danger to the household from its being exposed. The use of borax, in Europe, for washing, is well known, the addition of a large handful of borax, instead of soda, to ten gallons of water, being sufficient to save half the quantity of soap ordinarily required. For light fabrics and cambrics a moderate quantity is to be used; but for crinolines, which require to be made stiff, a strengthened solution is necessary. Being a neutral salt, it does not affect the texture of linen in the slightest degree; and as it softens the hardest water, it is much used in washing generally. It is also said to be unsurpassed for cleaning the hair.

## DOMESTICATION OF THE HORSE AND THE ASS.

We have already referred to the investigation by Mr. Lenormant in regard to the possession of the horse and ass by the people of ancient days. In a more recent communication he sums up his latest conclusions by stating that the two animals were originally natives of totally different countries, the horse having been domesticated on the plateaux of Central Asia, and the Aryan migration having been the principal cause of its diffusion throughout the world. Its adoption by the Semitic races

was much later, and it did not make its appearance in Egypt until about twenty-five hundred years before the Christian era. The ass, on the contrary, was an African species, domesticated originally on the banks of the Nile. From Egypt it passed, at an early period, among the Semitic people, who subsequently handed it over to the Aryan tribes—on the one side into Greece, on the other into Persia; and in its diffusion, which ultimately became universal, it took a direction precisely opposite to that of the horse. The two animals, however, starting from such remote points, finally came face to face, and were brought into general use by all nations.

240,000; in 1825 the number had increased to 551,920; at the census taken in 1851 it was ascertained to be 1,842,265; and in 1861, 3,090,561. At the last census, 1871, the total population was 3,602,321. The area and distribution of the population was as follows:

PROVINCES.	Area in English Square Miles.	POPULATION IN 1871.		TOTAL.
		Males.	Females.	
Ontario.....	121,200	828,590	792,281	1,620,851
Quebec.....	210,020	598,041	595,476	1,193,516
Nova Scotia.....	18,050	103,782	104,008	387,800
New Brunswick.....	27,108	145,888	139,796	285,504
Manitoba and North-West.....	2,891,734	.....	.....	11,953
Columbia.....	213,000	.....	.....	10,586
Prince Edward Island.....	5,473	47,121	46,900	94,021
Totals.....	3,463,952	.....	.....	3,002,321

The area and population of Newfoundland, which it is expected will at no distant day enter the Confederation, is as follows: Area, 40,200 English square miles; and population, 146,532. If added to the Dominion of Canada, the total area would then be 3,524,152 square miles, and the population, 3,748,853.

## AROUND THE WORLD.

Trips around the world are now becoming quite fashionable, and it is really marvellous how quickly and comfortably the journey can be made in this age of steam and electricity. It is claimed that the entire distance can be accomplished in 88 days and 4 hours. This would, doubtless, be much too fast for ordinary night-seers, but the man of business—to whom time is precious—would probably have time to see all he desired. The route from Great Britain directly across this continent, is now attracting much notice, and promises to increase in popularity. The following is given as the distances, time, and cost, of going around the world by this route:

	Miles.	Days.	Hours.
London to Liverpool.....	200	.....	5
Liverpool to New York (Mail Steamer).....	3,080	10	.....
New York to Chicago (Railway).....	890	.....	6
Chicago to Omaha (Railway).....	490	1	.....
Omaha to San Francisco.....	1,974	4	6
(By Union and Central Pacific Railway)			
San Francisco to Yokohama.....	4,764	19	.....
Yokohama to Shanghai (Steamer).....	1,200	4	.....
Shanghai to Hong Kong (Steamer).....	570	4	1
Hong Kong to Calcutta (Steamer).....	3,550	22	.....
(Via Galle)			
Calcutta to Bombay (Railway).....	1,400	2	.....
Bombay to Suez (Steamer).....	3,090	14	.....
Suez to Alexandria (Railway).....	225	.....	12
Alexandria to Brindisi or Venice (Steamer).....	850	3	.....
Brindisi or Venice to London (Railway).....	1,200	3	.....
(Fare for the above route, £195.)	24,103	88	4

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1871.	TOTAL.
2,261	1,620,851
5,475	1,191,516
4,008	387,800
9,706	285,594
.....	11,953
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6,960	94,021
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CELEBRATED ITHACA  
*CALENDER CLOCKS*

ARE THE BEST AND MOST RELIABLE

## CALENDER CLOCKS

MADE IN THE WORLD.

Their superiority over all other Calendar Clocks is admitted by all competent judges and everybody who has them in use.

They make all Calendar changes by winding the Regulators and Strike Clocks once a week, and the Silent Clocks once a month. Week Clocks run 10 to 12 days, and Month Clocks 40 to 45 days, but we say, wind once a week, and once a month will give you at a glance, with certainty, the

MINUTE AND HOUR OF THE DAY, THE DAY OF THE WEEK, THE DAY OF THE MONTH,  
THE MONTH OF THE YEAR, AND 29 DAYS FOR EVERY FOUR YEARS.

Leap Years, February and all others 28, to 1st March, without ever touching the Calendar only by winding the 10-day Clocks once a week, and the 40-day Clocks once a month. Every Clock is thoroughly tested before it leaves the Factory. We have these Clocks in thirty different styles to suit the wants of everybody, and in prices ranging from ten dollars to sixty dollars. Every Bank should have one of our Bank Regulators. Every Hotel should have one of our Office Clocks. Every office should have one. Every Public School and every private residence should have one in Canada, and every Jeweler should keep them in stock for his customers, and one for their Regulators. They are perfectly reliable and not complicated.

Send for Price List Illustrated Catalogue containing the Cuts of the Clocks and Prices.

**THE TRADE LIBERALLY TREATED.**

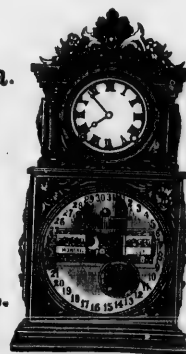
F. P. G. TAYLOR,

**Sole Importer and Agent for the Dominion of Canada.**

16½ *KING STREET, EAST,*  
**TORONTO.**

**P. O. Box 1886.**

**Messrs. EVANS & SON,**  
**AGENTS FOR MONTREAL.**  
*14 ST. JOHN STREET,*



S. R. WARREN & SON'S CHURCH ORGAN  
FACTORY.

This institution occupies a very prominent position in the manufacturing interests of Montreal, and is a very gratifying evidence of the progress of the fine arts as represented by music, in our Dominion. It is a well known fact that a new country's progress is indicated first, by the development of the agricultural interest. In proportion as this branch of industry improves, manufactures necessarily follow, and as the country becomes wealthy through these mediums assisted, of course, by education, music and the fine arts are brought more prominently into notice and are encouraged. As an indication of the progress of Canada through the first two stages, and the development of the third i.e. music, &c., when it is known that Messrs. Warren & Son, have built nearly a thousand instruments which are to be found in nearly every City and Town in the Dominion, (over 70 being in the City of Montreal alone), and some of them of colossal proportions, and also that even during these hard times they are "full of business," we think the exhibit particularly gratifying, shewing as it does, so conclusively, that we are making quite as rapid advancement, intellectually, at least, as older and richer countries.

Messrs. Warren's factory is situated on William street, (Nos. 47 and 49) and occupies a space of 35 x 100 on the ground and being four storeys high. The lower floor is used principally as a lumber store room, and contains the engine and heating apparatus, &c, the 2nd flat is occupied by the bellows makers, the "setting up" room, (which extends through two storeys), and the business office; the 3rd story contains the action makers and voicing rooms, and the 4th floor the wind chest makers, case makers, metal rooms, and key makers.

The latest improvements in machinery are in use, and the character of the work produced unexceptionable; the nicest detail is carefully scrutinized and nothing inferior in either material or workmanship is used. As a result of this great care the firm have the satisfaction of knowing that their instruments have given the fullest satisfaction and that their trade is increasing very rapidly in every direction. The business was established 40 years ago by Mr. S. R. Warren, the senior member of the firm; at that time the business was comparatively unknown in Canada, and Mr. Warren had many difficulties to contend with; however, being determined to persevere, and being gifted with a sincere love of the art, he has now the satisfaction of knowing that he stands at the head of his profession and that he has achieved a "name" second to none in the world. The junior was literally born to the business, and has received the benefit of the senior's experience, aided by travel in the United States and on the continent. The institution will amply repay a visit.

We certainly hope that they may continue in their onward course of prosperity, at any rate they are entitled to the patronage and support of all true Canadians, being

essentially a home institution and one of which we may justly feel proud.

MICROSCOPIC CHARACTER OF IRON AND  
STEEL.

According to Mr. Schott, the different qualities of iron and steel can readily be distinguished by means of the microscope. Thus the crystals of iron are double pyramids, in which the proportion of the axes to the bases varies with the quality of the iron. The smallness of the crystals, and the height of the pyramids composing each element, are in proportion to the quality and density of the metal, which are seen also in the fineness of the surface. As the proportion of the carbon diminishes in the steel, the pyramids have so much the less height.

In pig-iron, and the lower qualities of hard steel, the crystals approach more closely the cubic form. Forged iron has its pyramids flattened and reduced to superposed parallel leaves, whose structure constitutes what is called the nerve of the steel. The best quality of steel has all its crystals disposed in parallel lines, each crystal filling in the interstices between the angles of those adjoining. These crystals have their axes in the direction of the percussion they undergo during the working. Practically, good steel, examined under the microscope, has the appearance of large groups of beautiful crystals, similar to the points of needles, all parallel and disposed in the same direction.

REMOVING THE SMELL OF PETROLEUM.

Professor Stolba publishes what he considers the best method of completely removing from glass or other vessels the smell of any petroleum which may have been previously contained in them. This simply consists in introducing a suitable quantity of milk of lime and shaking it around thoroughly, and, after allowing it to stand for a time, repeating the operation in a few minutes. At the same time the external surface of the vessel is to be washed with a rag dipped in the same substance. Petroleum forms an emulsion with the milk of lime, and can thus be readily removed. If particles of thickened petroleum adhere to the glass, these can be removed by washing with fine sand, or by other mechanical means.

After emptying out the emulsion produced, it is only necessary to rinse with water, after which as much chloride of lime as will go on the point of a knife is to be introduced and shaken with water, and then allowed to stand about an hour, the exterior being rinsed off in a similar manner. If the liquids referred to are used hot, this operation will be materially facilitated. This information was given for the benefit of those living on the out-skirts of London, Ont.

Some years ago a Methodist minister named — occupied the pulpit of that denomination in Hagerstown, Maryland, and throughout the Conference year took frequent occasion to berate his flock. In consequence of

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# S. R. WARREN & SON,

MANUFACTURERS OF

## CHURCH ORGANS.

ESTABLISHED IN 1836.

SPECIFICATIONS FOR ORGANS

of any size furnished on application.

FACTORY,

Nos. 47 & 49 WILLIAM STREET,

MONTREAL.

S. R. WARREN.

C. S. WARREN.



#### VULCAN BOILER WORKS.

Mr. W. C. White, manufacturer of steam boilers, boats, bridges, tanks, &c., was established 1860. The factory and office is situated on the corner of Nazareth and Brennan streets, covering over two hundred feet square. The buildings are built of frame, two storeys in height, giving employment to fifty hands; using ten horse steam power.

these repeated attacks a goodly number of the brethren severed their connection with the church, determined not to return until the parson should be transferred to some other field of labour. It finally became known that the irascible — was to preach his farewell sermon, and scores who had been scored by his caustic strictures, thinking that he would say something in his valedictory to atone for the severity of his language toward them, turned out to hear. For half an hour he confirmed himself to an elucidation of his text, and then alluded to his separation from them. Said he: "There are some decent people in Hagerstown, and some mean ones; yes, some who are mean enough to steal the cross of Christ for fire-wood, and sell His clothes for rags. There are men before me who have grown gray in the cause of the devil; whose hearts are hard enough to build a turnpike between Hagerstown and hell; and I believe that there's just that spirit at work here that will see the enterprise put through!" An Irishman in the rear end of the meeting-house, no doubt indignant at the parson's remarks, bawled out: "And wouldn't ye, old man, be willin't to be a toll-gate keeper on that road?"

#### STAFFORDSHIRE POTTERIES IN THE SEVENTEENTH CENTURY.

A writer in the *Staffordshire Times*, in describing the birthplace of Elijah Fenton, the poet, gives the following interesting particulars about the town of Hanley, the metropolis of the Staffordshire Potteries. In the course of his remarks he says:—"Elijah Fenton was born in 1683, at Shelton Hall, the site of which is now occupied by Woodward's farm, and lies on the rising ground on the south east side of St. Mark's Church. Until recently the old hall remained pretty much as it was left by the poet in his boyhood. Its form was very irregular, but beautiful from its picturesque and antique appearance. The building was half wood and half brick, and in the Elizabethan style of architecture. As it stood it was one of the curiosities of the neighbourhood, not only as being the birthplace of our poet, but also from its associations, the Fenton family being of great antiquity, and able to trace their ancestry with certainty back to the time of Henry III. But imagine what Hanley must have been at the birth of Fenton! Standing on the rising ground that formed the site of the hall, a view was commanded of the whole country. There was

nothing to intercept the vista; no large manufactories, no tall stacks belching fire and smoke, no ironworks, with the clamour and ring, nor the noise of thousands of inhabitants who now throng the busy streets of the densely populated towns of the Potteries. It was then a wild open country, with here and there a solitary building. The white smoke that rose from the kilns of the potteries might occasionally hide the sunshine, but this would not break the general view. The great Josiah Wedgwood had not yet been born, but the Wedgwoods, the ancient potters of the district, were plying, in a rude, humble way, the fictile art at Burslem, then but a small village indeed. Hanley was of still less importance, and pottery here was just struggling into existence. A little before the birth of Fenton, a potter, named Glas, commenced to make what was called a "cloudy" ware, and Wm. Simpson, also of this date, made "mottled" and "cloudy." Three other potters, Rd. Marsh, Jno. Ellis, and Moses Sandford, comprised the whole of the pottery manufacturers in Hanley and Shelton at this period. The three latter manufactured butter pots and milk pans. Their places of manufacture were simply three or four thatched or mud-roofed hovels, and were made to comprise both dwelling-house and workshop. Erected close by were the hovels of their workmen; but not more than four or five hands were employed at each place. The rest of the country was spotted over with farms, mines, miners' huts, and moorlands. Such was the appearance the Potteries presented in 1683."

#### NICKEL AND COBALT PLATING IN THE WET WAY.

Professor Stolba, of the polytechnic laboratory of the Polytechnicon, of Prague, a chemist who has been the first to announce to the world several important technical discoveries, especially in reference to the plating of metals, has just published, in Dingler's *Polytechnic Journal*, an article upon the method of coating metals of all kinds with nickel and cobalt in the wet way, or by boiling; and he thinks that it will be quite possible to imitate the effect of, and even to furnish a satisfactory substitute for, the method by electroplating, which has lately come so generally into use.

The value of nickel plating is, of course, well understood, and it is now very much used wherever polished iron or brass is liable to corrode, as is particularly the case in the vicinity of salt water. In large yachts, where expense is no consideration, all the metal work, as also the machinery of sea-going steamers, is often treated in this way; a notable instance of which may be seen in the yacht *Resolute*, a splendid vessel lately built for Mr. A. S. Hatch, of New York.

The details of Professor Stolba's process are too complicated for our pages; but we may say, in general terms, that it depends upon the action of salts of nickel in the presence of chloride of zinc and of metal to be coated. The

# VULCAN BOILER WORKS.

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## W. C. WHITE, BOILER MAKER & BLACKSMITH,

IS PREPARED TO DO ALL KINDS OF

**MARINE AND LAND BOILERS,**  
TANKS, GIRDERS, & BRIDGES,  
AND EVERY DESCRIPTION OF

**WROUGHT IRON WORK,**  
Building and Repairs of Iron Boats,

Promptly Executed at the Lowest Rates.

PLANS AND SPECIFICATIONS FURNISHED IF REQUIRED.

*Repairs to Iron Ships made a Specialty.*

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**CORNER OF BRENNAN & NAZARETH STS.,  
MONTREAL.**

## THE WILLIAMS' MANUFACTURING COMPANY.

Amongst the great manufacturing industries of the Dominion, which have sprung up within a brief period of time, none is more noticeable than that of sewing machines, and Montreal is by no means behind her rival cities for first place in this friendly contest for superiority in the manufacture of goods which will please the general public and, at the same time, give satisfaction from the excellence of their make, and their great utility. The Williams' Sewing Machine Company, of No. 20 St. Germain street, Montreal, is one of the leading factories in the Dominion, and the largest in Montreal. The building has a frontage of seventy-five feet, with a depth of ninety feet, and an extension in the rear, which makes the structure look like the letter L—ninety feet by thirty. It is built of brick, is three storeys high, and is capable of turning out five hundred machines a week. The factory differs from some other sewing machine factories, from the fact that it is "self-contained," that is to say, that only raw material is taken into the works and a perfect and complete sewing machine is turned out, every portion of the iron, steel and wood-work being made on the premises, and nothing sent outside for either casting, moulding or finishing. The Williams' Company make only the "Singer" machine; a machine which has gained a world-wide reputation, and which has never been excelled for either strength or durability. Let us take a walk through the factory. On the first floor we find spacious offices handsomely fitted up, a japanning room, 45 by 30 feet, and a planing room, 45 by 30 feet, in which are four large and powerful planers. Above this, on the second flat, is what might be called the "machinery hall," of the establishment. Here the greater part of the force of the seventy-five horse power engine is spent, for it has an immense amount of machines to keep in motion, (we may mention, *en passant*, that the driving belt of this engine ranks the second in size in the Dominion, being twenty-four inches wide,) and the incessant whirr of the numerous machines, and the subdued murmur, of the suppressed voices of the numerous employees, causes a stranger to pause for a moment to gaze about him, in order to find out what kind of a place he is in. What does he see? He sees a room seventy-five feet long by thirty feet wide, in which are sixteen milling machines, ten engine lathes, thirteen hand lathes, three four-spindle drills, and four shuttle machines; the shuttle is one of the most important parts of a sewing machine, for if that is bad the whole machine is worthless, and the Williams' Company is remarkably careful about their shuttles, having them struck out from solid steel bars and paying great attention to their being not only of the best quality, but in the most perfect working order before they are put into a machine. On the third flat we find fourteen more engine lathes, five self-acting screw machines, and eight hand lathes. This ends what might be called the steam power manufactory proper, and the

big engine, with its ten feet diameter driving wheel, has, comparatively speaking, little else to do. From the third flat of the main building we pass to the third flat of the extension, where we find the packing room in which the machine, after being completed and tested, is prepared for shipment to any one who may want a first-class sewing machine. On this flat is also the setting-up room, where the various parts of the machine are taken and put together; and in this room is a curious-looking stand where a dozen machines at a time are imprisoned and made to run (by steam power) for five or six hours, until the friction has burnished the parts so that they are not susceptible of rust and will stand about four years more wear than a machine not treated in this way. There is also a store-room on this flat, where the small pieces of the machines are kept, and very frequently the value of these "small pieces" is as much as \$30,000. Apropos of these "small pieces" we may say that we suppose many of our lady friends, while working a sewing machine, have wondered how the small pieces, such as the hemmers, stitchers, needle bars, &c. acquired, so fine a polish, and have thought that it must take much time and trouble to accomplish it. Let us undeceive you. These "small pieces" are not polished by hand at all; they are simply put in a barrel, which has a belt connecting with the shafting attached to it, and revolves about once a second, and all the little pieces jostle against each other and scrape each other clean and polish each other up. Descending to the second flat of the extension, we come to the carpenter's shop, where the wooden frames, stands and cases are made. Here we find a circular saw, gig saws, planers, lathes, &c. All the cases of the Williams' machines are made of walnut, and about 50,000 feet a year is used up by the company. At the back of the carpenter's shop is the varnishing room, twenty-five feet square, where the woodwork receives its final polish. Descending once more—this time in semi-darkness—we find ourselves in the basement, which is ninety feet long by fifty wide, and is the foundry of the establishment, for the Company does its own moulding and casting, and, on an average, melts about two tons of iron a day. Up a crooked stairway we ascend into daylight and feel well satisfied with our explorations into the mysteries of manufacturing a sewing machine, and greatly obliged to the courteous superintendent, Mr. Davis; and, in fact, if we had any idea that we could be as successful as the Williams' Company, or turn out as good machines—for that is the secret of their success—we would be willing to go into the sewing machine business to-morrow. The show rooms of the Company are at 347 Notre Dame street, where there is a large display of their machines, and where the manager and his assistants can always be found.

The Williams' Company was founded in Boston, in 1856; was established in Montreal, in 1863; incorporated, in 1872, with a capital of \$500,000.

Its Board of Directors is composed of seven of the

C. W. WILLIAMS  
*Manufacturing Company.*

---

SIR HUGH ALLAN, .. .. *President.*  
JACKSON RAE, .. .. *Vice-President.*  
D. GRAHAM, .. .. *Managing Director.*

---

INCORPORATED 1872.

**CAPITAL, ..... \$500,000.00.**

---

MAKERS OF THEIR CELEBRATED

**SINGER SEWING MACHINES,**

*Head Office, 347 Notre Dame Street,*

**MONTREAL.**

---

**SINGER FAMILY and SINGER No. 2 Manufacturing  
Sewing Machines.**

THE WILLIAMS SINGER is the most popular Machine now made.  
Sewing Machine Dealers would do well to secure the Agency of these  
Machines.

*Send for Illustrated Catalogues.*

**C. W. Williams Manufacturing Co.,**  
**347 Notre Dame Street, Montreal.**

most wealthy and influential business men of Montreal,—Sir Hugh Allan being President, and Jackson Rae, manager of the Merchants Bank, being Vice-President. In 1874 the Company secured the services of Mr. D. Graham, a man of large sewing machine experience, as Managing Director, since which time the Company have been making sure and steady progress towards the goal of success.

substances required are : first, a suitable vessel for conducting the operation, which may be of porcelain or metal; second, a suitable salt of nickel, which may be either chloride, sulphate, or the sulphate of nickel, and potassa; third, a solution of chloride of zinc; fourth, clippings of sheet zinc or zinc wire and powdered zinc; fifth, pure hydrochloric acid. Cobaltizing, as Professor Stolba terms it, is conducted in very much the same way—a salt of cobalt being used in place of the salt of nickel.

### OUR MANUFACTURES.

The following table of industries, taken from the last census, will give some idea of the variety and importance of the manufactures of the Dominion.

INDUSTRY.	Capital invested.	Number of hands employed.	Total value of products.
Aerated Water making.....	116,315	217	225,677
Agriculture Implements.....	1,104,308	2,540	2,086,383
Bakeries of all sorts.....	1,065,431	2,664	6,942,469
Baking Powder making.....	3,430	8	11,500
Bank-note Engraving Establishment.....	100,000	82	60,000
Bark Extract Establishment.....	210,000	130	352,180
Barrel making.....	17,250	182	62,032
Bellows making.....	27,200	23	28,000
Belt and Hose making.....	22,050	24	43,300
Billiard Table making.....	24,000	26	105,000
Blacksmithing.....	24,000	6	16,000
Blacking Manufactories.....	1,730,638	10,313	5,364,411
Boat building.....	25,400	38	47,065
Bulter making.....	31,298	297	85,576
Book Binding.....	62,500	288	305,150
Book Crushing Mills.....	11,800	11	11,205
Boots and Shoes.....	180,700	592	512,211
Breweries.....	3,266,633	18,719	16,135,638
Brick and Tile making.....	1,660,140	918	2,141,229
Broom and Brush making.....	455,915	3,073	925,235
Button Factories.....	144,897	642	528,665
Cabinet and Furniture.....	2,050,175	4,706	11,500
Carding and Fulling Mills.....	752,962	1,224	2,253,794
Carpenters and Joiners.....	775,967	5,408	3,726,345
Carriage making.....	1,859,908	7,708	4,449,234
Carving and Gilding.....	92,580	180	213,740
Cement Mills.....	56,090	66	51,200
Charcoal burning.....	4,963	86	15,812
Chemical Establishments.....	465,900	203	810,250
Cheese Factories.....	400,754	869	1,691,738
Cider making.....	17,139	108	42,606
Cocoa-nuts.....	485,514	3,442	1,772,693
Cordial and Syrup Manufactories.....	155,019	165	580,728
Cork cutting.....	83,800	31	61,260
Cork Factories.....	632,000	745	781,900
Cutlery.....	2,100	11	11,620
Distilleries.....	237,200	467	4,092,537
Dressmaking and Millinery.....	504,808	3,477	2,565,079
Dyeing and Scouring.....	37,850	106	124,871
Edge Tool Manufactories.....	177,915	376	418,775
Engine building.....	709,900	1,067	1,044,525
Engraving and Lithographing.....	119,920	127	185,940
Fire-proof Safe making.....	52,800	118	97,775
Fishing Tackle making.....	180	2	1,494
Fittings and Foundry working in.....			
Brass, Iron, Lead, &c.....	457,412	991	893,308
Floor Oil Cloth Factory.....	30,000	10	50,000
Flour and Grist Mills.....	9,929,898	4,902	39,135,919

INDUSTRY.	Capital invested.	Number of hands employed.	Total value of products.
Foundries and Machine working.....	3,700,505	7,653	7,325,831
Furnace and Hatters, &c.....	1,159,038	1,801	2,875,060
Fuse Factory.....	3,000	6	1,200
Glass Works.....	2,480,845	299	75,200
Glass Works.....	136,120	318	233,130
Gold and Silver Smithing.....	27,300	37	34,200
Grindstone Works.....	31,686	52	89,500
Gunpowder Mills.....	68,609	328	78,505
Gunsmithing.....	84,000	22	124,000
Gypsum Mills.....	33,200	45	34,877
Hosiery Manufactories.....	104,250	278	110,514
India Rubber Factories.....	62,825	245	509,122
Indian Manufactories.....	454,690	494	502,015
Ink Factory.....	7,095	534	64,273
Iron Smelting Furnaces and Steel making.....	400	1	500
Jewellers and Watch Makers.....	492,000	624	298,000
Last Factories.....	204,512	463	427,897
Lead Pipe Works.....	33,250	82	64,857
Line Kilns.....	50,867	28	117,517
Lime Oil Factories.....	128,508	2,042	502,186
Match Factories.....	20,900	30	75,112
Mathematical Instrument making.....	106,015	1,127	230,137
Matress making.....	8,060	14	1,000
Meat curing.....	8,400	21	31,340
Miscellaneous Ware.....	419,325	841	3,799,552
Musical Instrument making.....	322,354	1,041	959,076
Nail and Tack Factories.....	201,050	498	625,162
Oil Clothing Establishments.....	382,050	590	1,147,380
Oil Refineries.....	2,780	48	13,430
Pail and Tub Factories.....	624,940	494	3,094,669
Paint and Varnish Work.....	73,680	114	172,754
Painters, Glaziers, &c.....	84,850	67	204,700
Paper Collar Factory.....	78,450	603	377,470
Paper Manufactories.....	58,000	96	115,000
Patent Medicine Manufactories.....	610,400	790	1,071,021
Photographic Galleries.....	57,650	73	171,050
Plaster and Stucco Factories.....	180,970	352	338,005
Plumbago Mills.....	4,850	51	40,820
Pot and Pearl Asheries.....	25,000	21	10,818
Potteries.....	155,416	956	512,290
Prepared Meat Factories.....	170,868	349	330,619
Prepared Articles of Food.....	85,000	292	29,000
Pump Factories.....	82,066	652	325,053
Quartz Crushing Mills.....	2,158,660	3,497	3,420,202
Railway Car Factories.....	96,964	280	191,820
Rivet Factories.....	441,200	525	229,718
Rolling Mills.....	108,000	175	513,000
Roofing Felt Factory.....	6,000	14	25,000
Rope and Twine making.....	440,000	702	1,680,000
Saddle and Harness making.....	13,200	11	14,902
Salt Works.....	210,660	450	769,640
Sand Paper Factory.....	631,896	2,067	2,465,321
Sash, Door and Blind Factories.....	206,100	185	136,599
Saw and File cutting.....	2,000	3	3,500
Saw Mills.....	907,294	2,519	3,008,641
Scale Factories.....	127,512	172	276,623
School Slate Factory.....	16,940,589	35,091	30,256,247
Seitching Mills.....	20,800	58	85,750
Sewing Machine Factories.....	3,000	22	8,000
Shingle making.....	107,782	559	269,818
Ship Material making.....	346,400	966	1,123,464
Ship Yards.....	489,073	3,100	881,995
Shoek Factories.....	232,323	372	882,271
Shoek Factories.....	1,094,425	6,046	4,432,265
Skate Factory.....	15,900	47	39,030
Snut Machine Manufactory.....	45,000	73	90,000
Soap and Candle making.....	279,821	301	1,323,833
Spike and Railway Chair Factory.....	24,775	30	80,000
Spring and Axle Factories.....	9,599	73	26,805
Stone Factories.....	89,850	103	228,813
Straw Works.....	121,000	72	222,844
Sugar Refineries.....	200,704	1,189	1,072,874
Surgical Appliances.....	205,305	608	538,250
Tailors and Ullotters.....	412,750	175	4,122,750
Tanneries.....	11,900	30	18,820
Tent and Awning Factory.....	1,721,903	11,092	9,340,875
Tin and Sheet Iron working.....	5,065,106	4,207	9,184,502
Tobacco working.....	7,000	0	2,000
Tobacco Pipe Factories.....	769,216	2,351	2,392,638
Trunk and Box making.....	573,145	2,816	2,435,343
Turnipine Distilleries.....	7,400	19	39,060
Type Foundries.....	100,793	8	536,430
Vinegar Factories.....	3,000	3	19,000
Wax Candle and Taper Factories.....	43,500	84	66,000
Whip Factories.....	47,040	41	180,312
Wig making.....	4,285	10	8,410
Window Shade Factories.....	6,170	28	21,018
Wood Turning Establishments.....	24,961	87	47,843
Wool Cloth making.....	4,670	9	15,900
Wool Cloth making.....	63,996	101	98,660
Wool Cloth making.....	2,770,814	4,453	5,507,549
Grand Totals.....	77,984,920	187,942	221,617,773



Total value of  
products.

7,325,631  
2,875,960  
1,200  
750,200  
285,130  
34,200  
89,500  
18,398  
124,000  
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170,514  
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502,615  
54,273  
550  
298,000  
427,897  
54,887  
117,517  
602,196  
75,112  
230,137  
11,000  
31,340  
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959,072  
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1,147,380  
13,439  
3,094,869  
172,754  
204,700  
377,470  
115,000  
1,071,651  
171,050  
338,005  
40,320  
10,818  
516,290  
330,619  
29,000  
282,053  
3,420,202  
191,820  
220,718  
812,000  
25,000  
1,680,000  
14,902  
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3,600  
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85,750  
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21,018  
47,943  
15,900  
59,900  
5,507,549  
121,617,773

## THE WENTWORTH ENGINE AND IMPLEMENT COMPANY.

The Wentworth Engine and Implement Company of Hamilton, Ont., was established in 1857, and has gained a well deserved and well earned reputation amongst the leading manufacturers of engines, boilers, agricultural implements, &c. The factory occupies about two acres of ground on McNab, Simcoe and James streets, and gives employment to about sixty hands. The Company makes a specialty of the Wheeler No. 6 combined mower and reaper, which is manufactured in Canada only by them.

## THE GROWTH OF OUR THEORIES OF THE WEATHER.

In the traditions of almost every nation whose history runs back to a traditional period there is an account of some divine messenger to whom their fathers were indebted for knowledge of agriculture. The origin of such a tradition is evident enough. It seemed in those early days the only explanation possible to account for so great an advance from the poverty, uncertainty, and anxiety of a life dependent upon the finding of such roots and fruits as nature might fortuitously afford, to the security and ease implied in agricultural pursuits. From the first rude attempt at agriculture, however, up to the present complicated scientific condition of that industry, we know that all our advance has been gained by the patient process of experience and thought. Analysis, synthesis, and comparison the only methods we have for arriving at truth have given us our theory of manures, the rotation of crops, and demonstrated the advantages of draining, or of subsoil plowing.

Some divine messenger may have brought the crooked stick which served as the first plow; but we know that the steam-reaper was so much of a human production that we have granted a patent to its inventor, as a reward for the thought and labor he expended in making it. With the aid of chemistry, accuracy and precision have been introduced into many departments of agriculture, and, in place of the old empiricism, we have the certainty of scientific knowledge. The cultivation of the earth as the primal and chief business of mankind, forming as it does the very corner-stone of social life and social progress, we find is aided and improved by increase of human knowledge in any and every direction.

The farmer of to-day is not only called upon to expend the sweat of his brow in earning his bread, but he finds that he must also tax his brains. The strength and endurance of his muscles will not come amiss; but the breadth and scope of his general knowledge, the accuracy of his observation, and the fineness of the tissue of his brain are of more importance still. Nor is the end yet reached. We have applied science to the study of the chemical constitution of the soil; we can tell what elements the manures we apply must have in them to pro-

duce certain results; we can decide upon the needed moisture of the land, and regulate it by draining; but for all the influences upon the crops we desire, which the summer's rains or droughts, the early or late frosts, the chill or heated terms, may have, we are helpless, and have to depend upon such conditions as the natural course of events may bring for us.

We are almost as far from knowing that the atmosphere can be cultivated and the climate regulated as our savage forefathers, who lived upon such roots and fruits as grew spontaneously, were that the soil itself could be brought under their control. In this case, as with agriculture, it is only as increase of knowledge gives increase of power that our conception of our domain over nature widens; and an examination of the gradual growth of our theories of climate will show that it lies as directly in the path of human progress to apply scientific knowledge to the regulation of the wind and the rain as it has been to modify the soil.

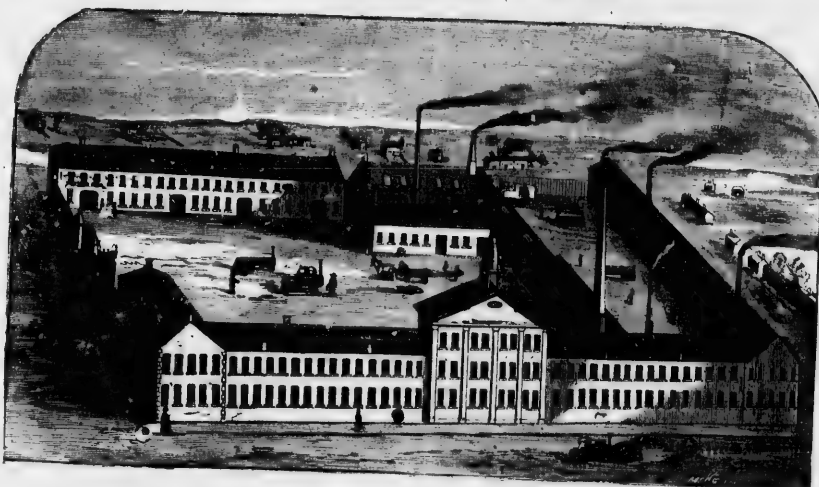
Meteorology, though by no means as yet an exact science, has taken its place in the scientific advance of the century, and has reaped the benefits which all special branches of investigation have reaped from the new spirit of positive inquiry which characterizes the present scientific thought of the world. A century ago it was impossible that anything like a general theory of the climate could be made, since there were neither the data in existence upon which to form such a theory, nor was mankind in possession of the means for arriving at such data. The students of the weather could rely only upon their individual observations; and to our, as to their, unaided senses it appears as though nothing could be more capricious than the weather; as though sunshine and showers succeed each other with no regard to rule or reason; as though the wind blows where it lists, and brings heated or chill terms with it as it wishes.

The barometer, however, first enabled us to measure and record the pressure of the atmosphere, and note its changes; then the thermometer enabled us to do the same thing with its temperature; then the investigation of the electric phenomena of a thunder-shower robbed the lightning of all its terror as the manifestation of some angry divinity, by showing that it was the natural operation of a force diffused through almost all the processes of nature.

The effect of these discoveries, affording the means of a more extended and accurate observation of nature than the world ever before possessed, led naturally to an increased interest in the study of meteorology, and this, in turn, produced further means of investigation. Neither the barometer nor the thermometer was found adequate for giving us all the data we needed concerning the condition of the atmosphere at any moment. There are other conditions upon which the chances of rain or drought depend. Not only the weight and the heat of the air are important to be known, but also its comparative moisture, and its electric condition.



THE WENTWORTH  
*ENGINE & IMPLEMENT CO.,*  
OF HAMILTON.



Manufacture for Canada the WHEELER combined

**REAPER AND MOWER.**

The Wheeler Reaper and Mower combines lightness and simplicity with durability, and will cut successfully any kind of Crop of any description of land.

It can be changed with the greatest ease and facility from a Mower to a Reapea and *vice versa*, and is in all respects,

**THE POPULAR FAVORITE WITH FARMERS**

WHEREVER IT HAS BEEN INTRODUCED.

Send for Illustrated Catalogue. Address,

The Wentworth Engine and Implement Company,  
**HAMILTON, ONT.**

# WENTWORTH ENGINE CO.

## THE EDGAR VERTICAL

### STEAM ENGINE AND BOILER COMBINED,

Is easily transported, and may be mounted on wheels for Agricultural purposes, occupies only small space, is extremely moderate in cost, simple in mechanism and graceful in design, very economical in fuel, supplying the place of a stove in winter, safe and easily managed, can be used without extra insurance risk.

We have introduced the EDGAR ENGINE AND BOILER to meet a felt want in Canada for Small Steam Powers at little cost.

With safety and economy in using, and they have at once become popular among *Farmers, Cheese Factories, Printing Offices, Brass Foundries, Box and Bag Factories, Blacksmiths, Carpenters, Cabinet and Carriage Makers, and all small Manufacturing Establishments.*

We are giving attention to have them introduced among our YACHT MEN for whom they are particularly adapted. For FISHING and TUG BOATS the demand is steadily increasing.

### Our 10-Horse Power Portable Engine and Boiler,

*Mounted on Iron Wheels, with Poles for Horses,*

**For Driving Threshing Machines,**

**IS KNOWN EVERYWHERE!**

## OUR BECKETT

### HORIZONTAL ENGINES

**And Boilers, from 10 to 100 Horse Power,**

Of design and construction which have secured very large sales in every part of Canada.

**Various Sizes always on hand.**

*We also Manufacture Machinery in General,*

**HAVING PATTERNS FOR LARGE VARIETY OF WORK.**

**LEFELL WATER WHEELS IN STOCK.**

Address, **Wentworth Engine & Implement Co.,  
HAMILTON, Ont.**

## H. B. WARREN & CO.

Messrs. H. B. Warren & Co. have the honor of being the first manufacturers of platform scales in Canada, this business being established in 1894. The patent platform scale was invented, patented, and introduced into Canada by the late Otis Warren, and the excellence of the manufacture has won wide popularity. The factory is situated at 205 and 207 Fortification Lane, near Victoria Square, Montreal; is a three-story brick building, furnished with all modern improvements in the way of machinery, which is driven by steam power and turns out first-class goods at very moderate rates.

For obtaining these data we have also instruments. The tests of the electric condition of the air, whether positive or negative, and also how strongly it is charged, or, as the phrase goes, what is its electric tension, are numerous but delicate, and can hardly be used except by experts. But, however, of the comparative moisture of the air is very simple. It consists simply of two thermometers placed side by side; the bulb of one is left exposed, while that of the other is covered with a bit of muslin, the end of which hangs down into a cup of water. The effect of this arrangement is that the muslin enveloping the bulb is kept moist by capillary attraction. If, therefore, the air is dry, and absorbs moisture, the water in the muslin on the bulb evaporates quickly, and in this process absorbs heat from the quicksilver in the bulb, thus causing the mercury to descend. If, however, the air is moist, the muslin retains its water, and the mercury is not affected by it. The difference or similarity of the reading of the two thermometers is, therefore, the test of the moisture or dryness of the air.

The simplicity and value of this instrument as a weather gauge should bring it into almost universal use. In indicating the weather it is more reliable than any other instrument which we have as yet, and, furthermore, as we shall see, has had an important effect in modifying our theories of rain.

Besides these instruments, we have others for measuring the force and direction of the winds, the amount of rain and snow which falls, and, finally, the telegraph is coming rapidly into use for the purpose of instantaneous intercommunication between distant points. By its aid, for the first time in the history of meteorology, it becomes possible to follow a storm in its entire course, noticing its commencement, its course, its changes, and its end. The effect of thus extending our powers of observation and introducing accuracy into our measurements of the various elements upon which our climate depends, has been the same in the study of meteorology that it has in all the other sciences. Our theories of climate have grown in order to keep pace with our increased means of observation, and from being local have become cosmical. The limitation of our unaided senses makes this the natural course in every science. To the first observers of the

stars it seemed indisputable that this earth was the centre about which they all revolved, and an entire system of celestial mechanics was constructed to account for their circulation.

In meteorology an analogous growth has taken place. Our showers were at first supposed to result from entirely local causes, and the theory formed for explaining them dealt only with such causes. The evaporation from any spot was supposed to be carried up into the colder regions of the atmosphere, and being there condensed into cloud, was turned again as rain from where it rose as vapor.

## THE SMALL CAPACITY OF A HORSE'S STOMACH.

A horse requires food in much more concentrated form than meat cattle or sheep. Hence, if the meal that is designed to be fed to a horse at one time be mingled with a bushel of cut straw, the animal will not be able to manage so much bulk in order to obtain the desired nourishment. Some writer who has examined critically the stomach of a horse, states that the stomach of a horse, of medium size, has a capacity of only about sixteen quarts, while that of an ox has about two hundred and fifty; in the intestines this proportion is reversed, the horse having a capacity of a hundred and ninety quarts, against one hundred of the ox. The ox and other animals have a gall bladder for the retention of a part of the bile secreted in the intervals of digestion; the horse has none and the bile flows directly into the intestines as fast as secreted. This construction of the digestive apparatus indicates that the horse was formed to eat slowly and digest continually, bulky and innutritious food. When fed on hay it passes very rapidly through the stomach into the intestines. The horse can eat but about five pounds of hay in an hour, which is changed during mastication with four times its weight of saliva. Now the stomach, to digest well, will contain about ten quarts, and when the animal eats one third of his daily rations, or seven pounds in one and one half hours, he has swallowed at least two stomachs full of hay and saliva, one of these having passed into the intestines. Observation has showed that food is passed to the intestine by the stomach in the order in which it is received. If we feed a horse six quarts of oats it will fill his stomach, and if as soon as he finishes this, we feed him seven pounds of hay, he will eat sufficient in three quarters of an hour to force the oats out of his stomach into the intestines. As it is the office of the stomach to digest the nitrogenous part of the food, and as a stomach full of oats contains four or five times as much of these as the same amount of hay, the stomach must secrete the gastric juices five times as fast, or retain this food five times as long. By feeding the oats first it can only be retained long enough for the proper digestion of the hay, consequently it seems logical, when feeding a concentrated feed like oats with a bulky one like hay, to feed the latter first.

H. B. WARREN & CO.,

MANUFACTURERS OF



WARREN'S



PATENT PLATFORM SCALES,

COUNTER SCALES. &C.

These Scales are too well known to require any comments on their quality, being patented in Canada, A.D. 1834. They were the first Platform Scales manufactured in Canada, and are known throughout the country.

*Descriptive and Price Lists sent on application.*

205 & 207 Fortification Lane,

(NEAR VICTORIA SQUARE,)

MONTREAL.

## CANADA WHIP COMPANY.

Messrs. Worsfold, Baker, & Co., were established in 1872. This we might say is the only whip factory in the Dominion. It is the only complete establishment of the kind we have visited. The firm employs over twenty-five hands, and does an extensive business all over the Dominion. Their Factory is situated in the Novelty Works building, 175 James street, north, office 14 Merrick street, Hamilton, Ontario.

## METHOD OF PREPARING FRUIT SIRUPS.

Some rules for preparing fruit syrups given by a German expert are perhaps worth a trial by our readers. To have fruit juices fit for preservation it is necessary, in the first place, to select fully ripe and undecayed fruit; and after mashing the fruit it should receive an addition of five to ten per cent. of sugar, and then be left to undergo a slight fermentation. Pectine is precipitated in consequence of the production of alcohol, and the juice, after filtration, becomes perfectly clear, and is much improved in flavor and color. Raspberries, whortleberries, currants, cherries, etc., may be thus treated, but the delicate flavor of the strawberry requires some modification of the process. In this two pounds of carefully picked strawberries (the wild strawberry of the woods is the best) are put into a glass jar with two and a half pounds of white powdered sugar, and occasionally shaken. The sugar extracts the juice, and the berries shrivel to a dry pulp, and, after filtering, the syrup is ready for use. Heating must be carefully avoided, as it would at once destroy the fragrance of the fruit. As to cherries, the so-called Morello is recommended, and, by leaving the cracked stones in the pulp, a flavor like that of bitter almonds will be imparted. To make syrup of the fruit juice prepared as above indicated, our author advises us never to make use of any metallic vessels or spoons, and always to take best refined loaf-sugar in lumps, five parts of juice to eight parts of sugar constituting a good proportion. The lumps of sugar are moistened with just enough water to cause them to dissolve readily, when the remaining juice is added, and the whole is to be rapidly heated to boiling, which, however, must only be continued for a few minutes. With good sugar no skimming is necessary, and filtering through flannel or other woolen cloth, previously wetted in water containing a few drops of sulphuric acid, and well wrung, will make the sirup perfectly clear. It is best to fill the preserve jars with the syrup when cold; but if it has been done when hot, the vessel must be filled up after cooling, as the vapor condenses on the portion of the vessel left empty, and, running down, dilutes the upper stratum of the sirup, thus making it more liable to spoil.

## QUEEN VICTORIA.

As Queen Victoria to-day begins the fortieth year of her reign, it may interest some of your readers to be reminded that she has not attained a very high rank on the roll of our Kings for length of reign; having lately passed Henry VIII. and Henry VI., she now stands fifth in order, being still junior or inferior only to Elizabeth, and the three long Thirds, Edward, Henry, and George. Of our early English, or ante-Norman Kings, no other reigned so long as Ethelred the Unready, but his 38 years are already exceeded by our present sovereign's 39 years. Elizabeth's reign, from the death of Mary, November 17, 1558, to her own death, March 24, 1603, lasted 44 years and 126 days; so that Victoria has to reign 5 years and 128 days beyond to-day before she will equal her great forerunner. Then will remain ahead only Edward III., 50 years and nearly 5 months; Henry III., 56 years and 19 days; George III., 59 years and 3 months. But of course even these long reigns look short by the side of the 72 years of Louis XIV. of France. Probably no two successive kings of any country reigned over so long a space of time between them as Louis XIV. and Louis XV., who from 1643 to 1774 made up together 131 years, or an average of rather more than 66 years per reign. How long will it be before France enjoys or suffers 131 consecutive years of rule under two persons, or even under two forms of government?

## ANECDOTE OF LORD DUFFERIN.

Not a great many people know that the popular and genial Governor-General (Lord Dufferin) had the misfortune to lose the use of one of his eyes, since by wearing a glass substitute and an eyeglass the useless eye appears "as good as new." This misfortune has more than once been the occasion of amusing rencontres, one of which I especially remember, and no offence could, in telling it be supposed to be given, since his lordship has told the story himself.

While travelling through Ireland (his native land) some years ago, Lord D., when nearing his destination, made use of the traditional jaunting-car. Paddy, the driver was on that day particularly loquacious and communicative, and during the journey volunteered a great deal of information on the different subjects that presented themselves, and this flow of conversation was all the more free and easy since he had not the slightest idea of the rank of his passenger. Not to be unsocial the future Governor-General asked Paddy what news he had to tell of the neighborhood. "As for news, yer honor," replied the unsuspecting driver, "shure I know of no news that would interest a gentleman laik yerself, unless it is that one-eyed Dufferin is going to marry Kate Hamilton. Though his lordship inwardly enjoyed the joke, he was gracious enough to deny himself the privilege of seeing the state of consternation the talkative car-driver fell into when he found that the "one-eyed Dufferin" he had spoken so familiar of and his passenger were one and the same person.

**WALKER & WISEMAN,**



**DESIGNERS**

AND

**Engravers on Wood,**

**97 St. James Street, - - - - Corner Place d'Armes**

**MONTREAL.**

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**Canada Whip Company,**

MANUFACTURERS OF ALL KINDS OF

**WHIPS AND WHIP LASHES,**

OFFICE, 14 Merrick Street, FACTORY, 175 James Street,

**HAMILTON, ONT.**

**J. WORSFOLD.**

**H. D. BAKER,**

**W. J. SWARTZENBURGER.**



## THE WATEROUS ENGINE WORKS COMPANY.

The rapid development of machine works in Canada, and the growing appreciation with which their products are viewed not only in Canada, but throughout the world, is the strongest and best refutation of the slur intended to be cast on Canada less than half a century ago by a popular writer who described her as "a country of backwoods and Indians." Even in the present day there is a very general impression amongst Englishmen and foreigners that Canada can produce nothing but lumber; that there is no field here for mechanics and artisans, and that one half of the year the inhabitants are frozen up along with the bears, and only thaw out in the spring to enjoy a short summer season. It is ludicrous sometimes to witness the astonishment of a stranger on his first visit to Canada, when he fails to find the bears, buffaloes and beavers he had expected to see promenading the streets of the rude "settlements" of his imagination; when he cannot find a "noble savage" except in a semi-civilized state, and instead of brandishing a tomahawk he sees him flourishing a Lacrosse stick; nor is his wonder abated at the lack of backwoods, for they have for the most part moved so far back that only an adventurous few have perseverance enough to visit them. Instead of these fond imaginings of his boyhood, conjured up by the tales of Fenimore Cooper, and kindred writers, he sees magnificent buildings ornamenting large and handsome cities. Alas for his dream of a wigwam! He finds vast fields of cultivated land almost groaning under the rich luxuriance of bountiful harvests; and, instead of the wild war-whoop of "the noble red man," he hears the busy hum of machinery, the subdued murmur of an immense commercial community, and discovers that Canada is not the wild, uncivilized place he thought her, but that she is fast rising in the scale of nations, and that she possesses that one thing so much needed in the Old World—elbow-room—so that if he means work, all he has to do is to pull off his coat and "pitch in." No matter whether he is a laborer, mechanic, tradesman or artisan, there is room for him if he is only willing to earn his bread honestly and work his way up by industry and perseverance.

For the partial and rapidly increasing eradication of these false notions about Canada she has, to a very large extent, to thank the pluck and enterprise of her manufacturers. Fifty years ago there was not such a thing as a machine shop or engine or boiler works in what is now known as the Dominion; everything was imported, and foreigners thought Canada could not manufacture any machinery for herself; but the great "World's Fairs" of 1851 in London, 1855 in Paris, 1862 in London, 1866 in Paris, 1872 in Vienna, 1875 in Santiago, Chili, and, last but not least, of the Centennial Exhibition now in progress in Philadelphia, where the mechanical display of the Dominion is generally acknowledged to carry off the palm in Machinery Hall, has opened the eyes of the world to the fact that Canada is no longer dependent on other countries

for her manufactures; that she can not only supply her own wants, but can go out into the world's market, fairly compete with the mechanical products of other nations, and frequently wrest the highest prizes from them in competition, as was the case in Santiago, Chili, last year, where the Waterous Engine Works, of Brantford, Ont., took four first prizes for the best circular saw mill in operation, a rotary fire pump, a shingle mill and a circular saw against four English and one French competitor. The saw mill literally "knocked spots" out of the others; they did very well in re-sawing deals or square timber, but when it came to rough logs from the forest they were nowhere, and had to "take a back seat" before the Waterous mill, which cut 1,000 feet of lumber in 40 minutes, although it had the misfortune to cut through a spike and had to stop to re-set the saw.

This naturally brings us to the Waterous Engine Company and something of what it has done and is doing. Thirty years ago Brantford, Ont., was a village, and not a very large one at that; but it was a go-ahead, pushing little place, and the fine town of Brantford to-day has, to a great extent, to thank Mr. C. H. Waterous for establishing his engine works there, and the little village for encouraging him to do so. The works were opened in 1844 by C. H. Waterous & Co. as the Brantford Engine Works and continued under that title, constantly growing in public favor until 1874, when it was found that the business had so greatly enlarged that more capital was needed to run it in a manner satisfactory to the proprietors and the public. A joint stock company was then formed which, out of compliment to the founder of the works, was called the Waterous Engine Works Company, of which Mr. Waterous is mechanical manager; Mr. I. Cockshutt, President; Mr. John Finken, Vice-president; and Mr. Geo. H. Wilkes, Secretary-treasurer. The Company has a capital of \$250,000, and since its reorganization has apparently entered upon a new lease of prosperity, as its engines, saw mills, boilers, saws, &c., are more sought after than ever. The works at Brantford are a very great improvement and addition to that rising and flourishing town, occupying about two acres of ground. The main building is a handsome, substantial brick edifice one hundred and forty feet long by forty wide, and three storeys high; it is divided into a machine shop, foundry, pattern shop, etc., and affords constant employment to one hundred and eighty men. The Waterous engines and saws have become household words in every part of the Dominion.

The Waterous Engine Works Company has sent one of their portable saw mills to Philadelphia where it is attracting considerable attention. They have followed their invariable rule of showing their machinery exactly as it is made ready for every day use, and not "got up for the occasion;" so that any prizes they take at exhibitions are *bona fide*, and not due to any extra adornment in the way of painting, polishing or plating, but to the intrinsic merit of the machine.

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**THE WATEROUS Engine Works Company**  
CAPITAL \$250,000

**J. Cockshutt,**  
PRESIDENT.  
**C.H. Waterous,**  
MECHANICAL MANAGER.

**John Flsken,**  
VICE PRESIDENT.  
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**ESTABLISHED 1844 BRANTFORD ENGINE WORKS**  
**INCORPORATED 1874 WATEROUS ENGINE WORKS**

**WATEROUS ENGINE WORKS CO.**

THE

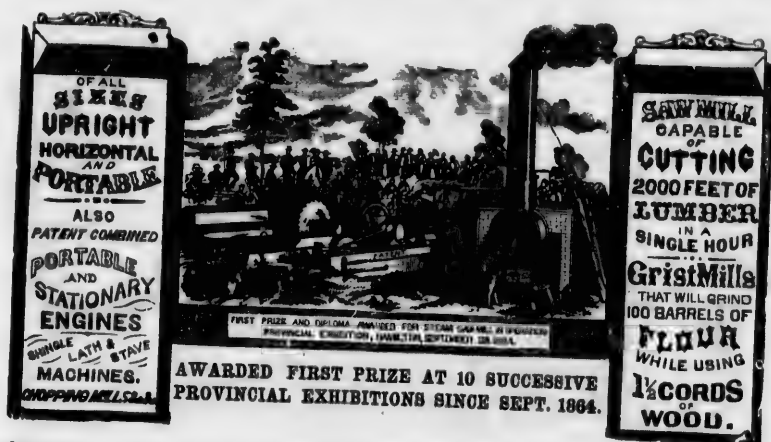
**Waters Engine Works Co.**

MAKE

# PATENT PORTABLE DIRECT-ACTION SAW MILLS

**THEIR SPECIALTY.**

*The Cut below represents our 25 Horse power Semi-Portable Direct-Action Saw Mill with No. 4 Saw Irons.*



We also attach to same Mill our Number Two Iron Frame Saw Irons, with V track, patent set, Friction Feed, and all late improvements.

The 25 Horse power Mill will drive a 60 to 66 inch Saw and will cut from eight to twelve thousand feet of Lumber in 11 hours, or, two thousand feet inch lumber in a single hour.  
Three to five men can work it.

**OVER FIVE HUNDRED IN USE.**

The Waterous Engine Works Co., Brantford, Ont.

SOLE AGENTS IN THE DOMINION FOR THE  
**Patent Clipper Flange Tooth Saw,**



**The Cheapest Saw Made,**

20. per Thousand will furnish Teeth.

Entirely superseding the old Solid Saws for the following Reasons:

Never gets smaller.  
Not liable to break out Teeth or crack Saw plate.  
Takes 1/3 less power, and cuts in place of tearing.  
Cuts smoother Lumber.  
Is easier kept in order.

**Extra Teeth only 50 cts. each.**

PRICE ONLY SLIGHT ADVANCE ON SOLID SAWS.

SEND FOR CIRCULAR.

SOLE AGENTS FOR

**Emerson's Patent Planer Tooth and Solid Saws,**

Also, Agents for American Saw Companies Inserted Tooth Saws, Canadian Solid and Inserted Tooth Saws.

All gauges and styles Saw Teeth kept in stock.

8 different styles Saw Swages,

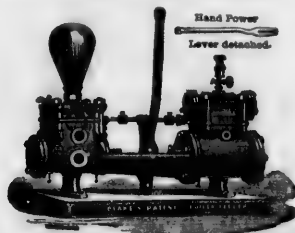
Oilmax Emery Wheel, } Gummern  
Patent Emery Wheel, }

Champion, New England, and Stone's Original, and Eclipse  
Gummern, Gummer Bits, Belting, Belt Studs, Cant  
Hooks, Flue Scrapers, Emery Wheels and  
general assortment of Saw Mill Furnishings kept in Stock.

AGENTS FOR

**Blake's celebrated Steam Pumps.**

KEEP IN STOCK STEAM BOILER FEEDERS.



Address, Waterous Engine Works, Brantford, Ont.

The Waterous Engine Works Co., Brantford, Ont.

THE

# 20 HORSE POWER Patent Portable Direct Action SAW MILL,

*Combines the Maximum of Power with the Minimum of Weight.*

Will drive 52 to 56 inch Saws and will cut Six to Ten Thousand feet of Lumber in eleven hours, or Fifteen Hundred feet of inch lumber in a single hour.  
Over One Hundred and fifty in use.

This Mill took First Diploma and Medal at the World's Fair, Santiago, Chili, South America, in Sept. 1875, in competition with Two English Circular Saws, One English Gang, and one English and one French Band Saw.

The Dominion Government purchased one of these Mills in 1874, to cut lumber for the erection of Barracks for the Mounted Police at Fort Pelly, several hundred miles West of Fort Garry, Manitoba. The Mill arrived on the 10th Sept. and in four days was put in operation, cutting in two months half a million feet of lumber and over 100,000 shingles. The following season, it was again put in operation, cutting over one million feet of lumber and some 600,000 shingles without any cost for repairs.

## ONLY MANUFACTURE

**Engines of all sizes,**

**Saw Mills, Grist Mills, and**

**Saw and Grist Mill Machinery,**

**ROTARY PUMPS and WATER WORKS.**

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BRANTFORD ONT.,**

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# TOO LATE.

Some people are always too late, and therefore accomplish, through life, nothing worth naming. If they promise to meet you at such an hour, they are never present till thirty minutes after. No matter how important the business is, either to yourself or to him, he is just as tardy. If he takes a passage in the steamer, he arrives just as the boat has left the wharf, and the train has started a few minutes before he arrives. His dinner has been ready for him so long that the cook is out of patience. This course the character we have described always pursues. He is never in season, at church, at a place of business, at his meals, or in his bed. Persons of such habits we cannot but despise. Scores of persons have lost opportunities of making fortunes, receiving favours, and obtaining husbands and wives, by being a few minutes too late. Always speak in season, and be ready at the appointed hour. We would not give a fig for a man who is not punctual to his engagements, and who never makes up his mind to a certain course till the time is lost. Those who hang back, hesitate and tremble—who are never at hand for a journey, a trading, a sweetheart, or anything else, are poor sloths, and are ill-calculated to get a living in this stirring world.

## A FEW SUGGESTIONS TO CHEESE MAKERS AND DEALERS.

Many of the suggestions which we recently made in regard to butter, says the *New York Grocer*, will apply with equal force to cheese. The same care in the management of the cows and the handling of the milk is necessary in both cases. But in cheese making our aim should be to keep the cream from separating from the milk. The trouble is to keep the milk from tainting or prematurely souring. The importance of getting it to the factory in good condition is better understood each succeeding year. We recently visited the factory of one of our most intelligent factorymen, Dr. L. S. Wights, of Whitesboro, N. Y., and found that, to secure this end, he had issued the following rules for the observance of his patrons of 1876.

1. The milk must be kept scrupulously clean in every respect.
2. No milk to be brought to the factory from cows whose calves have not been dropped at least three days.
3. Both night and morning's milk to be aired with a Bussey aerator, or by some other method equally good.
4. When brought but once a day, the night's milk must be well cooled as soon as milked.
5. When brought but once a day, the night and morning's milk must be put in separate cans, unless both messes are cooled before mixing.
6. No bloody milk from diseased or feverish cows to be sent to the factory.
7. [Relates for drawing cheese to the depot by patrons.]

8. Any known violations of the Senate law, by either patron or manufacturer, will receive the full penalty.

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Alexander, Hon. George.....	"
Allan, Hon. Geo. William, F.R.S., F.Z.S.....	"
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Armand, Lt.-Col. Hon. Joseph François.....	Conservative.
Bailargeon, Hon. Pierre, M.D.....	Liberal.
Belrose, Lt.-Col. Hon. Joseph Hyscithie.....	Conservative.
Benson, Hon. James Ben.....	Liberal.
Botsford, Lt.-Col. Hon. Amos Edwin.....	Conservative.
Bourinot, Lt.-Col. Hon. John.....	"
Breton, Hon. George.....	Liberal.
Bureau, Hon. Jacques Olivier, N.P.....	"
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Chapais, Hon. Jean Charles.....	"
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Cornwall, Hon. Clement Francis.....	Conservative.
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Dever, Hon. James.....	Conservative.
Dickey, Hon. Robert Barry, Q.C.....	"
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Dumouchel, Lt.-Col. Hon. Léandre.....	Liberal.
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Flint, Hon. Bill.....	"
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Hamilton, Hon. John (Inkerman).....	"
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Haythorne, Hon. Robert Poore.....	Liberal.
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Howland, Hon. George William.....	"
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Kenny, Hon. Sir Edward, Kt.....	"
Lacoste, Lt.-Col. Hon. Louis, N.P.....	"
Leonard, Hon. Elijah.....	"
Letellier, Dr. St. Just, Hon. Luc, N.P.....	"
McCallan, Hon. Abner Reid.....	"
McDonald, Hon. Donald.....	"
McLellan, Hon. Archibald Woodbury.....	"
McMaster, Hon. William.....	"
Macdonald, Hon. William John.....	"
McFarlane, Hon. Alexander, Q.C.....	Conservative.
Macpherson, Hon. David Lewis.....	"
Miler, Hon. William, Q.C.....	Liberal.
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Muirhead, Hon. William.....	Liberal.
Northup, Hon. Jeremiah.....	"
Ouel, Hon. William Hunter.....	Conservative.
Piquet, Hon. Anselme Homer, M.D.....	Liberal.
Penny, Hon. Edward Goff.....	"
Perry, Hon. Ebenezer.....	Conservative.
Prior, Lt.-Col. Hon. David Edward.....	"
Read, Hon. Robert.....	"
Reesor, Hon. David.....	Liberal.
Robertson, Hon. John.....	"
Ryan, Lt.-Col. Hon. Thomas.....	Liberal Conservative.
Scott, Hon. Richard William, Q.C.....	"
Seymour, Hon. Benjamin.....	Conservative.
Shaw, Lt.-Col. Hon. James.....	"
Simpson, Hon. John.....	Liberal.
Skedd, Hon. James.....	Conservative.
Smith, Hon. Frank.....	"
Sutherland, Hon. John.....	Liberal.
Tudel, Hon. François Xavier Anselme.....	Conservative.
Vidal, Lt.-Col. Hon. Alexander, F.L.S.....	"
Wark, Hon. David.....	Liberal.
Wilmot, Hon. Robert Duncan.....	Conservative.
Wilson, Hon. Charles.....	"

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Anglin, Hon. Timothy Warren (Speaker).....	Gloucester..... Liberal.
Archibald, Oyril.....	"..... Stomont.
Aylmer, Hon. Henry.....	"..... Richmond and Wolfe.
Bely, Louis François George, Q.C. Joliette.....	Conservative.
Bain, Thomas.....	"..... North Westworth..... Liberal.
Bannatyne, Hon. Andrew Graham.....	".....
Bellenden.....	Provencher..... Conservative.
Barbe, George Edouard.....	Richelieu..... Liberal Conservative.
Richard, Major François.....	Berville.....
Benoit, Pierre Brasil, J.P.....	Chamblay.....



# TORONTO CENTRAL SASH, DOOR, BLIND AND MOULDING FACTORY.

J. P. Wagner, manufacturer of sashes, doors, blinds, window frames, mouldings, &c. The factory, office and yards are situated at 59 to 73 Adelaide street, West Toronto. This is the largest factory of this kind we have seen in Toronto, giving employment to over one hundred and twenty men. The factory is well supplied with all of the most approved machinery for the manufacture of the above named goods, and parties visiting Toronto would do well to call at the above named place before purchasing elsewhere.

Bernier, Henri	Lotbinière	Liberal.
Bertram, John	West Peterborough	"
Biggar, James Lyons	East Northumberland	"
Blackburn, Robert	Russell	"
Blain, David, L.L.D.	West York	"
Blake, Hon. Edward, M.A., Q.C.	South Bruce	"
Blanchet, Lt.-Col. Hon. Joseph	"	"
Goderic, M.D.	Bellechasse	Liberal Conservative.
Borden, Frederick William, A.B.	"	"
M.D.	Kings N.S.	Liberal.
Borron, Edward Baines	Algoma	"
Bourassa, François, jun.	St. John	"
Bowell, Lt.-Col. Mackenzie, J.P.	North Hastings	Conservative.
Bowman, Isaac E.	North Waterloo	Liberal.
Boyer, Louis Alphonse	Shakungo	"
Brooks, Edward Towle, M.A., M.D.	South Grenville	Conservative.
Brouse, William Henry	West Hastings	Conservative.
Buell, Lt.-Col. Jacob Dockstader	Brookville	Liberal.
Bunsler, Hon. Arthur	Vancouver	"
Burk, Harvey William	West Durham	"
Burpee, Charles	Sunbury	"
Burpee, Hon. Isaac	St. John, N.B.	"
Cameron, Hector, Q.C., M.A.	North Victoria	Conservative.
Cameron, Lt.-Col. Hon. John	"	"
Hilliard, D.O.L., Q.C.	Cardwell	"
Cameron, Hon. Malcolm	South Ontario	Liberal.
Carman, Lt.-Col. James Wm.	Pictou	"
Caron, Joseph Philippe Beno	Quebec County	"
Adolphe, B.C.L.	Lennox	"
Cartwright, Hon. John Richard	West Elgin	"
Casoy, George Elliott, B.A.	Lalet	"
Casgrain, Philippe Baby	Lunenburg	"
Cauchon, Lt.-Col. Hon. Joseph Ed.	Quebec Centre	"
Charlton, John	North Norfolk	"
Cheval, Guillaume, J.P.	Bouville	"
Church, Charles Edouard, J.P.	Argenteuil	"
Christie, Thomas, M.D.	Chicoutimi	Conservative.
Climon, Ernest	Shakoka	Liberal.
Cockburn, Alexander Peter	Shalburne	"
Coffin, Hon. Thomas	Stanstead	Liberal Conservative.
Colby, Charles Carol	North Simcoe	Liberal.
Cook, Harmon Henry	Victoria, N.B.	Conservative.
Costigan, John, J.P.	Naperville	Liberal.
Couplé de St. Cyprien, St. J.P.	Westminster	"
Cunningham, James, J.P.	City of Ottawa	Liberal Conservative.
Currier, Joseph Merrill	Berthier	Conservative.
Cuthbert, Edward Octavian	Kings P. E. I.	"
Davies, Hon. Daniel	Victoria, B.C.	Liberal.
De Cosmos, Hon. Amos	St. Hyacinthe	"
Delorme, Louis	Portneuf	Liberal.
Desjardins, T. C. Alphonse	City St. John, N.B.	"
De Saint George, J. Edras Alfred	Montreal, Centre	"
M.D.	Yale, N.B.	Conservative.
DeVos, Jeremiah Smith Boies	Kings	Conservative.
Devlin, Lt.-Col. Bernard	Missisquoi	Liberal.
Devaney, Hon. Edgar, C.E.	Montcalm	Conservative.
Donville, James	North York	Liberal.
Donahue, William	Queen's N.B.	"
Dugas, Firmin	North Huron	Liberal Conservative.
Dymond, Alfred Hutchinson	North Leeds	"
Farris, John	North Rimouski	Liberal.
Farrow, Thomas	East Grey	Conservative.
Ferguson, Charles Frederick, M.D.	Richmond, N.S.	"
Fiset, Jean Baptiste Bonald, M.D.	Queen's, N.B.	Independent.
Flomberg, Gavin, J.P.	Liberal Conservation.	"
Fleisher, William Kingston, J.P.	Lewis	Liberal.
Flynn, Hon. Edmund Power	North Lanark	"
Forbes, James Fraser, M.D.	Nicolet	Conservative.
Fraser, James Harshaw	Verdun	Liberal.
Frechette, Louis Honoré	Dundas	"
Gairbrath, Daniel	Yamaska	Conservative.
Gaudet, Joseph, J.P.	"	"
Geoffroy, Hon. Felix, M.P.	"	"
Gibson, William	"	"
Gill, Charles Ignace, L.L.B.	"	"

Gillies, John	North Bruce	Liberal.
Gilmor, Hon. Arthur Hill, jun.	Charlotte	"
Globensky, Charles Auguste Maxi-	"	"
milian	Two Mountains	Independent.
Gordon, Adam	North Ontario	Liberal.
Goudge, Monson Henry	Hants	"
Greer, Thomas	South Huron	Conservative.
Hager, Albert	Fredericton	Liberal.
Haggart, John Graham	South Lanark	Liberal Conservative.
Hall, James, C.E., P.I.S.	East Peterborough	Liberal.
Harwood, Robert William, J.P.	Vaudreuil	Liberal Conservative.
Higginbotham, Lt.-Col. Nathaniel	"	"
J.P.	North Wellington	Liberal.
Holton, Hon. Luther Hamilton, J.P.	Chateaugay	"
Horton, Horace	Centre Huron	"
Huntington, Hon. Lucius Seth	Shefford	"
Hurtac, Hilaire, N.P.	L'Assomption	Liberal Conservative.
Irvine, Emilius, Q.C.	Hamilton	"
Jette, Louis Amable	Montreal, East	"
Jones, Major David Gilpin	Halifax	Independent.
Kerr, William, M.A.	West Leeds	Conservative.
Killian, Frank	West Northumberland	Liberal.
Kirk, Lt.-Col. John Angus	Yarmouth	"
Kirkpatrick, Lt.-Col. George Airey	Guyborough	"
L.L.B.	Frontenac	Liberal Conservative.
Lafamme, Teusaint Antoine	"	"
Ladouceur, Q.C., D.C.L.	Jacques Cartier	Liberal.
Laird, Hon. David	Queen's, P. E. I.	"
Lajoie, Charles Gerin	St. Maurice	"
Lauderkin, George, M.D.	South Grey	"
Lawson, Hon. Hector Louis, O.B.	Q.C.	"
Langlois, Jean, L.L.D., Q.C.	Charlevoix	Conservative.
Lantier, Jacques Philippe, J.P.	Montmorvici	"
Laurier, Alfred, B.C.L.	Drummond, Arthabaska	Liberal.
Little, William Carruthers, J.P.	South Simcoe	Liberal Conservative.
Macdonald, Alexander Francis	Cornwall	"
Macdonald, John, J.P.	Toronto, Centre	"
Macdonald, The Right Hon. Sir	"	"
John Alexander, K.C.B., D.C.L.	"	"
(Oxon) L.L.D., Q.C.	Kingston	Conservative.
MacDonnell, Samuel, Q.C.	Inverness	"
Macdonnell, Colin	Kent Elgin	Liberal.
MacKay, Newton Lagoyet, Q.C.	Cape Breton	Liberal.
MacKenzie, Hon. Alexander	Lambton	"
Macmillan, Duncan, B.A.	East Middlesex	Liberal Conservative.
Mason, Lt.-Col. Louis François	Roderique	"
McCallum, Lachlan	Terrebonne	Conservative.
McCleaney, William, J.P.	Halton	Liberal
McDonald, William, J.P.	Cape Breton	Liberal Conservative.
McDougall, John Lora	South Renfrew	Liberal.
McDougall, William, Q.C.	Three Rivers	Conservative.
McGreery, Hon. Thomas	Quebec West	"
McIntyre, William	Essex	Liberal.
McIntyre, Peter Adolphus, M.D.	C.M.	"
McIsaac, Angus	Kings, P. E. I.	"
McKay, Thomas	Antigonish	"
McLeod, George	Colchester	"
McNab, Archibald	Kent, N.B.	Independent.
McQuade, Arthur	Glenagary	Liberal.
McTear, James	South Victoria	Conservative.
Hills, David, L.L.B.	Rathwell	"
Ritchie, Hon. Peter	Northumberland, N.B.	Conservative.
Moffatt, George, J.P.	Restigouche	"
Montith, Andrew	North Perth	"
Mounplaisir, Hypolite	Chaplain	Liberal.
Moussan, Joseph Alfred, Q.C.	Bagot	Conservative.
Norris, James	Lincoln	"
Oliver, Thomas	North Oxford	"
Orton, George Turner, M.D.	"	"
M.R.C.N.	Centre Wellington	Liberal Conservative.
Chimel, Joseph Aldric, L.L.B.	Laval	Liberal Conservative.
Palmer, Silas Lockwood, Q.C.	St. John City and	"
County, N.B.	South Brant	"
Paton, William	"	"
Pelletier, Charles Alphonse Panta-	Kamouraska	"
ron	Prince	"
Perry, Hon. Stanislaus Francis	Brome	"
Pettes, Nathaniel, J.P.	York, N.B.	"
Pickard, John	"	"
Pinsonneault, Lt.-Col. Alfred, J.P.	"	"
Platt, Samuel	East Toronto	Conservative.
Plumb, Joseph Burr	Niagara	Independent.
Pope, Hon. John Henry	Compton	Conservative.
Pond, Jean Baptiste	Temiscouata	Liberal.
Power, Patrick	Halifax	"
Poser, Christian Henry	Beauve	"
Ray, Lt.-Col. William Hallett	Annapolis	"
Richard, Edward Emery, B.C.L.	Megantic	"
Robillard, Ulysse Janvier, J.P.	Bonaventure	"
Robinson, Hon. John Beverly	Toronto, West	Conservative.
Robitaille, Hon. Theodores, M.D.	Bonaventure	"
Rochester, John	Carleton, Ont.	"
Roscoe, Francis James	West Middlesex	Liberal.
Ross, George William	East Durham	"
Ross, Lewis	Prince Edward	"
Ross, Lt.-Col. Walter	"	"

# TORONTO CENTRAL SASH, DOOR, BLIND & MOULDING FACTORY.

(ESTABLISHED 1860.)

**J. P. WAGNER,**  
MANUFACTURER OF

**SASHES,**

DOORS,

**BLINDS,**

DOOR AND

**WINDOW**

FRAMES,

**MOULDINGS.**

## Rope & Spiral Mouldings

For Ornamenting Columns. Shelving, Counters, Verandahs, Porches, Cornices, Balusters, Window and Door Frames, Letters for Sign Boards, and numerous other purposes, of the following sizes :

1 1 3/4, 1 1/2, 2 1/4, 2 1/2, and up to 4 inches, both right and left.

2 Having perfected a Machine for making Rope & Spiral Mouldings, I can now supply the Trade with the same, of the Patterns shown on this card, for about one-fourth the cost, and much neater and truer than the heretofore hand work, and of any other design of Moulding that can be done on an ordinary Moulding Machine.

ORNAMENTAL

AND PLAIN FENCE

**Pickets,**

PEW ENDS,

**Mantel Pieces**

SKIRTINGS

**ARCHITRAVES.**

**Stairs, Hand Railings, Balusters, Newels, Trusses, Brackets, Counters and Fret Work.**

Sawing, Matching, Planing, and Re-sawing, Done to Order,

DEALER IN

**LUMBER, FLOORING, SHEETING, &c., &c.**

Sole Agent for Ontario for the VIRGINIA CANE FIBRE FELTING for Sheathing Frame Houses ; Underlining Roofs ; Deafening Floors, &c.

Cheap Carpet and Oil Cloth Lining.

I am in a position to supply the trade at the shortest possible notice and at reasonable prices.

My Factory is one of the oldest and most complete of its kind in Toronto, having all of the latest and most approved Machinery. And every facility for Manufacturing House Furnishing of any description. Employing during the summer months from 80 to 120 hands.

*Factory and Yard,*

**59 to 73 Adelaide Street West, - TORONTO.**

## TORONTO SCALE WORKS.

To Messrs. C. Wilson & Son, Esplanade street Toronto, belongs the honor of having the oldest and best known scale manufactory in the Dominion, the works having been established in 1861, and grown in reputation so much that it now gives constant employment to about thirty men. The factory is a three and a half story frame structure, having a frontage of forty feet by a depth of seventy feet, and contains all of the newest and most approved modern machinery for the manufacture of scales, the motive power being supplied by a twelve horse power steam engine. These scales have always taken the first prizes at Provincial exhibitions, whenever offered for competition; noticeably in the Ontario exhibitions of 1874 and 1876, when they took the first prize amongst a host of competitors. They have also received a diploma from the Governor-General, being the only scales in the Dominion which have received such a distinction. The firm manufactures every kind and grade of scales, from the smallest counter or balance scale to the largest railway track scale. Old scales can be repaired at these works and made equal to new, and any scale can be adjusted to the new Dominion standards, or to the metric, or decimal system at short notice.

Rouleau, Francois Fortin	B.C.L. Dorchester	Liberal Conservative.
Ryan, Joseph O'Connell	Marquette	Liberal.
Rymal, Joseph	South Westworth	"
Scateherd, Thomas	North Middlesex	"
Schultz, Hon. John Christian, M.D.	Lisgar	"
Scriver, Julius	Huntingdon	"
Shibley, Schuyler	Addington	Liberal Conservative.
Short, John, J.P.	Gaspe	"
Sinclair, Hon. Peter	Quebec	Liberal.
Skinner, Lt. Col. James Atchison	Southxford	"
Smith, Hon. Albert James, Q.C.	Westmoreland	"
Smith, Hon. Donald Alexander	Selkirk	Conservative
Smith, Robert, J.P.	Peel	Liberal.
Snider, George	North Gray	"
Stephenson, Rufus	Kent, Ont.	Conservative
Stirton, David, J.P.	South Wellington	Liberal.
St. Jean, Pierre, M.D.	Ottawa City	"
Tachereau, Henry Thomas, B.C.L.	Montmagny	"
Thibaudeau, Hon. Isidore	Quebec, East	"
Thompson, Major David	Raidmand	"
Thompson, Joshua Spencer	Cariboo	"
Thomson, William Alexander	Welland	"
Tremaine, Barclay Edmund	Victoria, N.S.	"
Trow, James, J.P.	South Perth	"
Tupper, Hon. Charles C. B., M.D.		
L.R.C.S. (Edin.)	Cumberland	Conservative.
Vail, Lt.-Col. Hon. William Bernard Digby		Liberal.
Wallace, John, J.P.	Albert	"
Wallace, George	South Norfolk	Conservative
White, John	East Hastings	"
White, Peter, Junr.	North Renfrew	"
Wood, Anthony Trew	Hamilton	Liberal.
Workman, Thomas, J.P.	Montreal, West	"
Wright, Lt.-Col. Alonso	Ottawa County	Liberal Conservative.
Wright, William McKay, B.A.		
B.C.L.	Pontiac	"
Yeo, Hon. James	Prince	Liberal.
Young, James	South Waterloo	"

## PRINTING OF TEXTILE FABRICS.

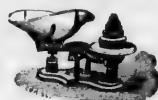
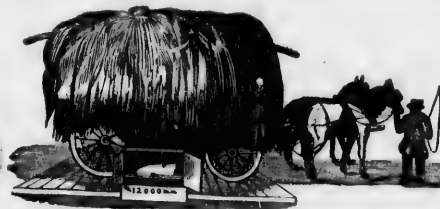
Within these last fifteen years there has been a method discovered of increasing and decreasing the tints of certain colours, without interfering with the white, but it is not universal. A roller is so placed that while two or three rollers are working longitudinally, it will be

printing in the contrary direction another colour, which acts chemically upon the others and changes the shade.

In those printed elaborations of the art which tend to make it a repulsive mystery, instead of an attractive and interesting study, eleven styles of calico printing are enumerated, but these three contain nearly the whole of them, the subdivisions being only the natural fruit of increased data and fanciful arrangement. We have, however, to notice, that known by the term Steam colours as the modern style. There are not many colours which attach themselves firmly to the piece by the mordant, but by exposing the goods so printed to the action of steam, the substance, the mordant, and the colour, intimately combine. It is not exactly a style, but it produces novelty, and is, moreover, very advantageous. A perforated cylinder, connected with a steam pipe, is used as a roller for the printed piece, after it has been first well covered with coils of blanket, and the steam is turned on to a temperature of 200° or 210° for half an hour, and then unrolled directly, exposed to the air, put into a warm room for two days in the ageing process, and it is done. It tends to fix the colours, and gives brightness and elegance to the work. It is, however, necessary to remark that for steam goods there must be a careful selection of colours, and as careful a preparation. It is not every colour that will work in the process, and after the material has been what is called padded (in the case of mineral colours), they are dried over a hot stove and hung up for a few days, then washed in hot chalky water, rinsed thoroughly in cold, and after drying, passed through the calender before being printed.

The last species of style is that known by the term Spirit Colours. These hues are derived from various woods mixed with muriate of tin. They are very bright, but do not stand. The small four-colour machine is usually employed, and as the piece comes from the machine, the gallery over which it passes is not so hot as usual, and it is necessary to rinse carefully in running water, washed and rapidly dried in moderate heat.

In preparing the colours, etc., for calico-printing an artificial thickening is employed, which varies in consistency according to circumstances. The degree of consistency, the nature of the thickening material, require to be varied according to the minuteness of the design and the nature of the substance to be applied; particular colouring matters and mordants often requiring special thickeners. A difference in consistency will cause a difference in shade, and the time required for the fixation of a mordant is considerably affected by the nature and consistence of the thickening material with which it has been applied. The usual articles used for this purpose are simple enough, viz:—wheat, starch, flour gum arabic, British gum, calcined potatoe starch, gums senegal and tragacanth, salep, pipe-clay, and china-clay mixed with gums, rice starch, sago, sulphate of lead; but the most useful are wheat, starch, and flour.



## TORONTO SCALE WORKS,

*C. Wilson & Son, Proprietors.*

The TORONTO SCALE WORKS are the oldest Scale Works in the Province of Canada, having been ESTABLISHED IN 1861.

The Proprietors would beg leave to state that they possess facilities for Manufacturing which are not surpassed in this country; that they have lately added some expensive machinery to their Works, and as they employ none but the best artisans and workmen, carefully selected in England, the United States and Europe, they believe that they are justified in saying that no establishment of the kind surpasses them in quality of work and style of finish.

*All kinds of Scales and Weighing Machines,*

FROM THE LARGEST RAILWAY TRUCK SCALE, DOWN TO THE SMALLER COUNTER SCALE, MANUFACTURED AT THESE WORKS.

These Scales have been awarded the highest Prize at the Public Provincial Exhibitions whenever offered for competition, and have also received

A GRAND DIPLOMA FROM THE GOVERNOR GENERAL.

SCALES REPAIRED AT THE SHORTEST NOTICE.

Scales adjusted to the NEW DOMINION STANDARD and also to the Metric or Decimal System when required,

**Every Scale Warranted.**

SEND FOR ILLUSTRATED CATALOGUE.



# R. M. WANZER & CO.

Sewing machine manufacturers, Hamilton, Ont. The machine trade in Canada, has developed into extraordinary dimensions within the past fifteen years. Since the date referred to some large establishments have sprung up from small beginnings until now the manufacture of sewing machines has become one of the most important in the Dominion, giving employment to several thousand men and profitable investment for some millions of dollars. The largest of these and first established in Canada, is that of R. M. Wanzer & Co., which received the following unprecedented distinctions at the Vienna exhibition in 1873. Two medals of merit, a distinction not obtained by any other sewing machines at the exhibition. One grand silver medal for the best family and manufacturing sewing machines. His Majesty the Emperor of Austria conferred upon Mr. R. M. Wanzer the iron cross and knighted him with the order of Francis Joseph, the first, for his valuable services in the sewing machine business; which were the highest honours conferred at the exhibition. Mr. Wanzer is the only sewing machine manufacturer in Great Britain and its colonies that received these honours. The factory of R. M. Wanzer & Co., which we are now about to describe, is situated on the corner of King and Catherine streets, Hamilton, Ontario, and was established in the year 1860. This is the largest sewing machine factory in Canada and the third largest on the continent of America, giving employment to over four hundred hands, and has a capacity for turning out fifteen hundred machines a week. Canada ought to feel proud of this enterprising firm. Their buildings are numerous, extending from King to Main streets, taking in both sides of Catherine street, and are four stories in height, built of brick, at a total cost of about one hundred thousand dollars, with a cash capital of over \$300,000.

On entering the business office, and expressing a wish to inspect the premises, we were conducted through the whole building. The different operations of the manufacture and uses of the various exquisitely finished and marvellously perfect machines necessary to the manufacture of a first-class machine were explained to us. We pass from the offices into the casting room, where castings for from three to five thousand machines are undergoing a cleaning process to fit them for subsequent operations. There is a large number of men at this work alone. In the same room the various screws in the machines are made, some twenty machines being employed for that work, and these, with milling machines, lathes, and drills, worked by countless belts, pulleys and shafts, fill the apartment with life and motion. We then enter the blacksmith's shop; here there are two heavy drop presses which are used principally for making the shuttle. This is one of the most important and delicate operations in the construction of a first-class machine. In making the shuttle the work is required to be so perfect in form and finish, and at the same time so durable, that the greatest

care has to be taken with it at every step. It is pressed from a solid steel bar; the weight required to drop out a steel shuttle is twelve tons. We pass the great engine with a glance, there lies the great giant, silent, patient and tireless, that reaches out its arms over the whole great building, passing power from belt to pulley and shaft, and running a thousand different machines. The firm have just put in an additional hundred horse-power boiler, built by Kennedy & Co., of Dundas. We then pass to the second floor; a variety of operations are conducted here. Men sit in front of emery wheels, revolving at the rate of three thousand revolutions a minute, polishing needle bars, &c., the dust from the material flying off at white heat from the rapidity with which the machines work. Here the little bobbins which hold the thread in the shuttle are made in large numbers; next are lathes for wood-work, machines for finishing and polishing, screws, &c. Several rooms are on this floor, such as storeroom and room for fitting up stands, blacksmith's shop for light work, and tool room. We then pass to the third floor; here all the parts are adjusted and brought together to make a complete machine, after passing the inspector who examines them to see that all are perfect. There are several rooms on this floor, such as japanning room, ornamenting room, nickel plating room, and room for baking. The japanning and ornamenting of the machine is quite an interesting operation; after the first coat of black japan is applied the articles are placed in an oven and heated to four hundred degrees, and baked for eight hours. They are then re-coated with japan, ornamented with gold leaf and inlaid with Mother of Pearl, after which they are put in another oven at a temperature of two hundred degrees. The ornamenting is done by a process which originated in their factory. It does away with skilled labour, and far surpasses anything of the kind heretofore used. Those who have ornamenting to do would do well to acquaint themselves with this process. A number of manufacturers in the States are now paying Messrs. Wanzer & Co. a royalty for this most valuable invention. We then pass to the fourth floor; here the shuttle is completed and all attachments made. We then descend to the second floor and go through to the carpenter's shop; here the cabinet cases, covers and boxes are made and from there are sent to the paint shop and varnish room. We then descend to the lower flat; this is used as a sawing, planing, and turning room. We then pass out and are shown a large building across Catherine street, which is used as a foundry and furnaces, and has a capacity for melting about six tons of iron per day. Here we saw the newly invented ramming and moulding machine, where unskilled labour can be used doing the work faster and better than is possible in the old way of moulding. Many foundry men are availing themselves of this invention. As the drawing of the pattern, &c., requires no skill we believe this invention will come into general use when once known; several foundry men in the States who are up to the times are already

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# THE WANZER SERIES

COMPRISES THE FOLLOWING MACHINES :

**THE LITTLE WANZER**

HAND LOCK STITCH :

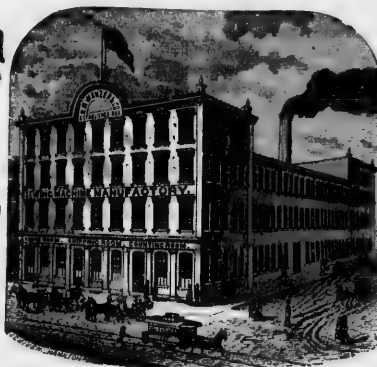
Sewing Machine.

**THE WANZER "A"**

(Straight Race,)

HAND LOCK STITCH

SEWING MACHINE.



**THE LITTLE WANZER**

WITH STAND,

To work by Hand or Foot.

**THE WANZER "A"**

(Straight Race, WITH STAND,)

To work by Hand or Foot.

**The WANZER "F" New Family Machine,**

With Reversible Feed Motion, specially adapted for Light Manufacturing purposes.

**THE WANZER "D"**

For Tailors and Manufacturers of Heavy Goods.

**THE WANZER "E"**

With Wheel Feed for Manufacturing and Heavy Leather Work.

**R. M. WANZER & CO.,**

**HAMILTON, ONT.,**

DOMINION OF CANADA.



using this invention. There are other buildings connected with the factory too numerous to mention. There are over forty thousand square feet of flooring in the building. R. M. Wanzer & Co., send their machines to all parts of the world, England, France, Germany, Russia, Norway, Sweden, Holland, Belgium and Mexico. South America has been an increasing customer, Australia and New Zealand take large supplies, and the Almond-eyed beauties of China and Japan make their silken robes on the Wanzer sewing machine. Even Africa sends to the New Dominion for sewing machines, and the little magicians play on the banks of the Nile, under the shadow of Table Mountain. Indeed the centre of the continent is not neglected, for the Transvaal Republic away up in that dark land is regularly supplied. Thus Wanzer & Co. are not only benefactors of their race in civilized lands, but they send out cargoes of mute but eloquent missionaries, which if they cannot teach the nations the truths of christianity can at least lead them the way by teaching them first the arts and comforts of civilization. The catalogues of this extensive firm are printed in thirty-two different languages. They have been awarded Medals, Diplomas, Honours, and Prizes at all European Exhibitions; at Vienna, capital of Australia, Royal Diploma in 1864; at the National Exhibition of the British Isles, held in Dublin, first prize medal in 1866; at the British Exhibition, held at Dudley and York, two first prize medals in 1867; in the same year at the Great World's Exhibition, held in Paris, France, they were awarded the first and highest prize medal for family sewing machines, eighty-seven competitors; at Manchester and Cheltenham, England, two first prizes medals in 1868; Sidney, Australia, gold medal, 1871; Lima, Peru, gold medal in 1872; Moscow, Russia, gold medal in 1872; Vienna three medals; at the Santiago (Chili) World's Fair, first medal in 1876, and we have no doubt that Messrs. Wanzer & Co will receive a first prize at the Centennial Exhibition in Philadelphia.

It is proper to observe that all goods to be printed have to undergo a very important previous operation—that of bleaching—of which we will give an outline, premising that silken cloth only requires to be boiled in a solution of soap and soda to remove the gum, then passed through dilute sulphuric acid, and washed and dried. Cotton goods demand an elaborate treatment. Previous to bleaching, the fibrous down or nap on the surface of the cloth must be removed. This is done by singeing. The piece is rapidly drawn over a red-hot half-cylindric bar of copper placed across the flue of a fireplace, situated immediately at one end of the bar, and then directly passed round a wet roller to cool. Iron bars were formerly used, but copper ones last ten times longer, and will singe three times the quantity with the same fuel. One ton of coal in a proper furnace will singe 1,500 pieces over a copper bar. The process is repeated three times; twice on the side to be printed, and once on that intended for the back. The colour of the goods thus treated becomes light brown.

Mr. Hall, of Baxford, Nottingham, some fifty years ago improved on this method by using gas. On the gas-pipe is placed horizontally another pipe, pierced with jet-holes, the width of the piece to be singed: over this is a contrivance like a retort, with half the bulb taken away, and of the same width as the pipe below, communicating by a tube with an air-pump, which is kept working. Just between this gas-flame and the retort the cloth is made to pass, horizontally, swiftly enough to prevent its ignition, and of course the cloth presses against the bottom of this exhauster rather forcibly, and cuts off the flame without passing through, singeing only one side. The calico is then steeped in cold water to soak, or better into half-boiling water, or boiled for a short time; this is done to remove the weaver's dressing. But it is found best to use a half-boiled weak spent alkaline lye, and let it ferment for 1½ days, when the dressing has been of sour paste; but the process must not exceed a certain time, or putrefaction will begin, and then no bleaching will make it white, beside which the texture will be rotten.

The goods are washed by the dash-wheel, then boiled with lime in a vessel constructed for that purpose. A pan of wrought iron placed on the furnace contains the lime-water; it is covered with a larger, containing the goods and having a perforated bottom; in the centre of this is a shaft with a cup at the top, but open a few inches below the cap. As the bleach boils below, the steam vapour rises in this shaft and sheds its contents upon the calico in the large pan, gradually filtering through it and, condensing, passes into the lower tank, where it resumes its journey and continues to do so eight times. This is the principle, but there are many variations, some to give stronger lye, some a more rapid action, and some the reverse of both. Some makers turn out goods that are more tender than others, finer or commoner as it may happen, and the treatment has to be modified accordingly. Many now use a caustic soda as affecting the object in much less time, with less labour and smaller cost.

This properly done, the cloth is subjected to the action of the bleaching powder or chloride of lime, mixed in the proportion of one pound to six gallons of water, where it remains five or six hours; it is then taken out and washed to undergo the souring process by which, by the agency of very dilute sulphuric acid, it is rendered much whiter, and the oxide of iron which pervades all cotton more or less is removed. It is then well washed, again boiled for six hours in alkaline lye; and after that boiling, again carefully washed in cold water. It is again bleached for six hours, and again soured, but the liquids are much weaker. It is then whiter. These operations, thus briefly enumerated, do not exhaust the processes, but their description will convey some idea of the scientific art in a practical form required for such productions.

The goods are then starched by machinery, stiffened by machinery, and sent off to be printed by machinery. And it is curious to notice, in passing, that every contrivance which economises or supercedes labour is

# THE GREAT NIAGARA FALLS ROUTE

BETWEEN

## THE EAST AND WEST.

Speed,  
Safety,  
Comfort.



Sure Connections,  
Stone Ballast,  
Steel Rails.

## Great Western Railway of Canada.

This favorite and justly popular Line stretches across the Western Peninsula of Ontario from Suspension Bridge, on the Niagara River, to Windsor (opposite Detroit), on the Detroit River, a distance of 229 miles, and with Branch Lines forms a system of nearly eight hundred miles of Road, under one Management, passing through the finest and most productive portion of Western Canada, and is a link in the great chain of Railways forming the Overland Route from the Atlantic to the Pacific.

Four Express Trains, each way daily, making close connection East and West, at Suspension Bridge (Niagara Falls) with all Express Trains on the New York Central and Hudson and Erie Railways for Buffalo, Rochester, Elmira, Albany, New York, Boston, Philadelphia and all points in the Eastern States. At Detroit with the Michigan Central and Detroit and Milwaukee Railways for Bay City, Saginaw, Grand Rapids, Muskegon, Chicago, Milwaukee, St. Louis, Omaha, San Francisco, and all points in the Great West to the Pacific Coast.

At Hamilton and Toronto, during the season of Navigation, with the Royal Mail Line of Steamers for Port Hope, Cobourg, Kingston, Montreal, Quebec, and all principal points on Lake Ontario and the River St. Lawrence; also at Toronto with the Grand Trunk Railway for all points in Eastern Canada. At Southampton with Beatty's Express Line of Steamers for Duluth, Fort William, Silver Islet and Fort Garry. At Port Stanley with the Cleveland

and Canada Steam Boat Line for Cleveland, making connection daily at the latter place with the C. C. C. and Indianapolis R. Road, Atlantic and Great Western R. Road and the Cleveland and Pittsburg R. R. for all points in the South West and South.

The only Line Running,

## **Palace Sleeping and Drawing Room Cars.**

Via Niagara Falls and Detroit from New York and Boston to Chicago, without change.

*A Number of New*

## **DINING CARS**

Have recently been placed upon the principal Express Trains running between Detroit and Suspension Bridge on this Railway, in which meals are served to passengers of the entire train at the moderate rate of 75c.

These Cars will no doubt be appreciated by the travelling Community as a want long felt, and Passengers on these Express Trains will be enabled to get their Meals on board at moderate rates.

 Remember that the GREAT WESTERN RAILWAY is the only Line between Detroit and Niagara Falls and Buffalo running these

## **DINING CARS.**

## **P A R L O R C A R S**

Are run on Day Trains between Detroit and Suspension Bridge; also between Toronto and Buffalo, via the Falls, making this the most popular route between Buffalo and Toronto.

## **Tourists and Pleasure Seekers**

should travel by this Railway and not fail to see the Niagara Falls, which can be seen in all their beauty while crossing the Great Niagara River Suspension Bridge.

Be sure and ask for Tickets reading via Great Western Railway, which can be had at the Offices of all connecting Lines in the United States and Canada.

F. BROUGHTON, General Manager, Hamilton, Ontario.

WM. EDGAR, General Passenger Agent, Hamilton, Ontario.

THE ONLY PATENT MACHINE

Paper Bag Factory in the Dominion



P.-1870-B.

J. C. WILSON & CO.,

Manufacturers and Printers of

Patent Machine Paper Bags and Flour Sacks,

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**PAPER & TWINES.**

584 CRAIG STREET MONTREAL.

Sole Manufacturers and Owners of the Patent for Canada of

*Bernier's Patent Square Bag,*

Send for Price List.

attended with the result of employing more artisans. These various processes were formerly handicraft in a rude and homely fashion. Now they are simply magnificent factors in a stupendous result, the production of millions of yards of infinitely varied articles of furniture or clothing, which very immensurability would be multiplied indefinitely if chemical skill could shorten the time, or mechanical skill accelerate the work.

#### TRIP TO CARRATRACA.

The Guide Book was right about Carratraca, so far as it went, but the Guide Books generally "imitate the noble Roman in brevity." I was now under the ciceroing of my host to learn those lessons in practical geography, and see with my own eyes those sights which the most conscientious Guide Book cannot teach nor see.

It was a lovely Sabbath morning as I have already said, and when, after breakfast, we set out for our ramble, I felt all that exhilaration of one who though warped and worn by three unbroken years of head work in the hearing of the stony streets, has ever had the country with its undulterated air and sunshine present with him. Now,

Through golden vapors of the morn,  
I heard the bleat of sheep;  
I trod with a wild ecstasy  
The bright fringe of the living sea.

The bright fringe aforesaid was damp—that could not be denied. The water in the main river had risen in twenty-four hours three feet, the little streams were swollen and turgid, and the creek, adown which is borne away two Bethsadas of waste water daily, had asserted itself as the recent and omnipresent mud showed. The grass was yet wet with morning dew when we set out.

Carratraca Farm covers about 250 acres, and is mainly blue clay over sand, with a frequent vein of peat a foot thick. Geologically the vicinity is one of the most interesting in Canada, and was a long-time favorite with the late Sir William Logan. On one side of the road is a large and level field, destined, under new management, to become an amusement ground, whereon, at no distant period, the youthful swells sojourning at the Canadian Saratoga shall urge their hacks and wield their mallets. The house and its outbuildings cluster round the creek which is formed by the rising of a myriad springs in one basin. Then, for half a mile, the property runs back to the wooded heights and deep ravine towards which we were now wending our way. Along little paths of damp clay, through grass still glistening, over fences and amid stumps on we went. The grass was alive with creaking grasshoppers, frogs leaped away head over heels as we passed, little snakes drew their rapid green ribbons through the herbage. "There are snakes about here," says my guide. "they killed one six or seven feet long last week." On, into a patch of imperial poppies, grow-

ing rank and crimson, and just beyond them was a sight worth walking a mile to see. A field of sun-flowers, each as tall as a man, with great, staring yellow faces, turned to meet the blaze of the sun. Such a mass of glistening gold one does not often meet. The sight of a grain field is after all only that of sober, moderate plenty: its yellow is business like, but this was sumptuous, luscious, exuberant, cloying, and with the glow of crimson and gold through which we had passed, it was some time ere it could take cognizance of milder hues.

"We are now," said our leader, "on the most interesting portion of the farm. Just below is the ravine, which, as you see, is a couple of hundred feet lower than this table land. The warm spring there is one of the curiosities of the place. It never freezes, and in the winter retains a temperature of 65°. The most curious thing about it is the crevice in the hill where it rises. This is so deep that its bottom cannot be seen, and when last winter we put a lighted candle attached to a pole into it, we found that the sides were covered for six or eight inches thick with flies and mosquitoes, who evidently made this their winter quarters. The ground here is hollow, and every few yards you will find a deep hole."

The ground did indeed ring hollow under the foot, and holes were plenty down which one could probe a ten-foot pole without finding bottom. Elsewhere, in a pretty little glade, overhung with matted boughs and lumbered with the trunks of rotting trees, gurgled a stream as cool as ice, over a bed reddened with iron, and whose water sliding into a crevice in the earth, falls with a hollow sound never to re-appear. The whole place seems one cavern. The Indians told of it in a legend, that is now matter of memory only to an old priest in the vicinity from whom I heard it, that this was the Medicine Ground of the Great Spirit (Manitowonah) and that as well it was his armory. In a great lodge of mystery in the recesses of the earth, he started up fire for arrows and thunder for war-clubs, and great pestilences, trouble and destructions, but that though old heroes had been found worthy to be admitted to these secrets, and to attain thereby invulnerability, men now were too much squaw. The legend seems to point to a cave now forgotten, and a period of earthquake and volcano.

About one of these caves a story of the present day is told. It is a cave about three feet wide at the mouth and running into the earth about twenty-five feet, with a slight descent. This has been the haunt of bears during the winter for many years, the animals hibernating, and issuing in the spring when the snow and torpor had passed. In 1861, the neighbors determined to make some attempt to solve the mystery of the cave, and to determine whether it was the northwest passage, the prologue to Galconda, or a short cut to the realms of the Great Bear. One man, Henry Boyle, if my informant's memory did not err, went down feet foremost with a rope fastened round his arm-pits. After proceeding some twenty-five

# NEW WAREROOMS.

## Extension of J. WHYTE & Co's Agricultural Works.

We beg to announce that we have fitted up for a Ware Room, the buildings formerly used by Mr. HILL as a SKATING RINK,

### OPPOSITE HENTHORN'S LIVERY STABLE, HUNTER ST.,

and, from its central position in Town, will be a great convenience to our Customers and the public. In addition to the Implements manufactured by ourselves, we have succeeded Mr. E. E. Bowic, in the Agency for the sale of the Celebrated MOWING AND REAPING MACHINES, Manufactured by MESSRS. A. HARRIS, SON & Co., Brantford, of which we have the following:—

New Kirby Reaper. Combined. New Kirby Reaper. Single. Kirby Combined Baltimore Rake. Ceres or Burdick Single Reaper. Kirby Two-wheel Single Reaper.

We have at all times Patterns of and Repairs for the above Machines in stock at our Foundry



## The PLOUGH DEPARTMENT

Comprises Eight Varieties, chief of which is

### "THE CHALLENGE & IMPROVED COMBINATION PLOUGH,"

Fitted with Iron Beams and best hard tempered American Steel Boards and Steel Landsides. These Ploughs are admirably adapted for all kinds of soil.

We have also on hand, Points and Soles for all the Ploughs Manufactured by the late Whyte & Davis, the Peterborough Manufacturing Co'y, and Mr. Wm. Holm, made from a mixture of the best American and Scotch Iron, and Guaranteed to be Hard and Durable. We have also repairs and Patterns for all the Machines sold by the above-named parties on hand.

Having decided to make PLOUGHS A SPECIALTY, and by using nothing but first-class material, and having a thorough knowledge of the business, coupled with fair and honest dealing, we hope to merit and obtain a fair share of public patronage.

JOHN WHYTE, MANAGER.

JAMES WHYTE & COMPANY.

ONTARIO FOUNDRY, PETERBOROUGH.

N.B.—The Foundry and Machine Shop is situated on McDONNELL STREET, immediately opposite the Cardin's and Woolen Mill of Mr. Augustus Sawers.  
Peterborough, June 7th, 1876.



feet through a narrow passage ridged by the action of water and the claws of beasts, he found himself in a sort of chamber about five feet high and eight wide. Near its roof was a hole evidently leading to regions more subterranean. Our explorer in cautious guise thrust his candle end into the aperture to reconnoitre the "unoccupied territory." To his consternation it was knocked out of his hand, and a piece of the hand went with it, while a bass growl wrapped in bearskin "went for" him. The intrepid explorer scrambled out in the best time on record, and the bear following close at his boot-heels, a hairy whirlwind of vengeance, was shot. In 1866, two bears, one a remarkably large one, were killed here.

But, "let the dead past bury its dead" bears! We have much to see ere dinner, and the glorious sun is already high. Leaving the lowland behind us we came to a hill about two hundred feet high. The sandy path up which we panted was red with the iron washed down by the recent rains. We gained the summit, a pleasant close-cropped sward, with a back-ground of gloomy pines set off here and there with the light foliage of the maple, or the deep red sumach. "And, now," said my guide, "look."

The whole Ottawa valley abounds with lovely glimpses and landscapes, which if they were in Europe, difficult of access, and fashionably expensive, would attract the attention of Montreal. The remote has charms, where the next door is common-place. This view that there for the first time I looked upon need not sit below the salt at the great banquet of Ottawa scenery. To the right we looked over intervening ravines, gray with pines blasted by fire and decay. Beyond the level was beautiful with dark-green woods as yet unshorn. Further rose the hills over whose summits we could see for leagues, till the eye caught the thin blue bulk of Mount Rigaud, and the twin hills which give their name to the Lake of Two Mountains, while a little cloud showed the waters of the Ottawa at St. Anne's. To the North we looked over lower clumps of hills across the river, hidden by intervening ranges, to the loftier hills, which like Alcides bore the weight of the intense blue sky on their shoulders. On one of these a little mite of a white house, the only sign of man's presence, humanized the prospect. The magnificence of the view bounded only by the sky and fringed in with ranges of beautiful hills, the purity of air and sun, the sublime peace of the whole scene, which in its potent simplicity dwarfed mere pastoral or architectural prettiness,—these were enough to make me, cynic as I am, keep quiet and lift my hat in homage.

"Upon this hill, sheltered from the keen northern winds by this screen of pine-trees," said my guide, philosopher, and friend, "shall stand the Carratraca House which hostelry is destined, under favorable circumstances, to eclipse the fame of such cots as the Union, the Congress, and the Continental. It shall be built in Virginian style, one story, with an attic for bed-rooms, and a broad, cool,

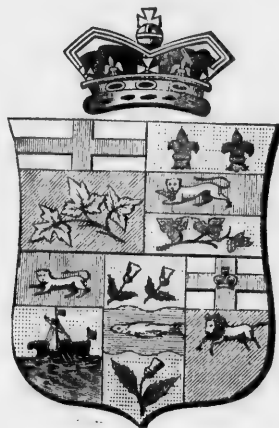
trellised verandah, overhung with vines, which shall drop shadows and June-bugs upon the loungers. I do not like pretentious six-story houses. Invalids do not want to pant up long flights of stairs. The rooms shall be large, lofty and airy, the furniture plain, good taste and comfort shall prevail, even at the sacrifice of expense, style and snobbery. The grounds are to be laid out with serpentine walks. The late occupants here have not been so Vandal as the generality of farmers in Prescott. They have spared the beautiful cedars and firs which grow in picturesque clumps up from the level clean sward. That tree yonder, tipped with the light of an Italian moon and shrined in Italian turf, would set half of Europe crazy. There will be rustic seats, and bosky thickets for lovers; there will be a tramway down to the spring about half a mile from here; there will be every appliance for health or flirtation. And if the latter be carried too far, and a man desires to seek in self-murder the torture denied him in matrimony, all he has to do is to go to that hollow near the road, and drown himself. We shall dam the creek and have a pond five acres in extent for fishing, boating, and suicide, and as there will be in some places fully twelve feet of water, every purpose will be answered. Let us go hence. I will show you the plans and elevations of the hotel down at the house."

We walked home. The sun was now high, and had ravished the grass and briar of their dew-drops. The red raspberry beloved of the bear,—the beautiful waxen berries of bright scarlet, and, like a coquette, as deadly as handsome,—these grew in unplucked plenty on the slopes. We came to the croquet ground, shaded by beautiful elms, and amused ourselves by setting fire to the heaps of brush piled up for destruction. Soon a dozen smoulders of white smoke showed where the last traces of the forest primeval were vanishing into oblivion and potash. Then we, attracted by the magnificent geological formations disclosed by the deep cutting of the creek, played the geologist. There is a wealth of minerals on this farm. Lithographic stone of the purest quality is found here. There is a bed of peat almost on the surface. And for those who care for the idle curious, there is great bed of the horns and bones of deer who must have browsed and belled here about the time of Adam.

And there are fossil shells plainly distinguishable in stones which are petrified mud of some primeval time. And there are other stones glittering with mica, in scales which may be detached by the nail. In one place the wet bank seemed to sparkle in the sun from the number of these particles. Other stones there are tinted beautifully with various combinations of sulphur. In short it is not to be wondered at that Sir William Logan had an affection for the place.

Tired and muddy we re-enter the house, first paying our attentions to the maid of Carratraca. Here I make an *amende honorable*. "W., I say, I thought when first you sent me that Carratraca, that, like your cordials, it was manufactured on the premises. There was a sparkle

*Winning, Hill & Ware,*



**Distillers & Manufacturers,**  
**MONTREAL.**

**CORDIALS, BITTERS, BRANDIES,**

Tom Gins, Ginger Wines,

Choice Fruit Syrups,

**Curaçoa, Capillaire, Coloring,**

**Irish, Scotch, Bourbon and Rye Whiskeys.**

### DOMINION CARRIAGE FACTORY.

The Dominion Carriage Factory is located at No. 9 Park street, Hamilton, Ont., and was established 1871. The buildings are built of brick, two storeys in height, covering about half an acre of ground, giving employment to fifteen or twenty hands. This is one of the neatest establishments of the kind in Hamilton, and was awarded the four first prizes at the great Central fair in Hamilton, in 1875. The firm have a spacious show-room and offices in the front, with the factory in the rear.

and an actual aroma about it perceptible to nostril as well as to palate. But now I find it was brewed in a alembic subtler than even your patent still? I retract."

While awaiting dinner, I lounged or rather swung, Cuban fashion, in a hammock on the piazza, watching the passers-by coming from church at Carrara. Ye city belles and beaux, little know ye of color and of cut. Muir hath not seen, nor Gibb heard, neither hath it entered into the heart of Anderson to conceive styles such as these. "There are chords in the humming heart which cannot be vibrated," said Mr. Guppy. There are fashions in dress which cannot be imagined, say I, and these were of them. French carts, guiltless of springs, drawn by furry horses. Old men with the most prodigious beaver hats, wide in the brim, big at the crown, furry all over, ornamented with a short pipe in the band, rough clean flannel shirts about as soft as nutmeg-graters, blue or red or yellow checked vests, and gray homespun coats and trousers. Old women with black hoods tied round their necks, and green tartan cloaks tied round their heels. Young men in threadbare black frock coats cut with the daring uncertainty of a country tailor. And young women—women to whom the dying dolphin was tame, and the rainbow uniformity itself, and Solomon in his glory dowdy! And all as they passed home from church called at the spring to drink Carratraca, and then went on their way refreshed. For the spring has a wide renown among the simple country folk.

After dinner we went out for a drive through the country. The roads around here are lovely. Carratraca is just on the limit of the sandy uplands, and so escapes those terrible mud-puddles, and as formidable dust holes which are the curse of Caledonia. The roads are hard and level, and the scenery varied and pleasing; and as there are no less than seven roads accessible from the house one can have change, and bowl merrily along for a week over a different road every day.

We came home under the cold winking stars, past trees and swamps noisy with katydids and crickets, and lit up with a myriad of flitting fire flies. With Thackeray and brandy and water we whiled away the long hours till bed-time. To-morrow was to be a busy day. There were three springs to inspect, a mile and a half of tables and analyses to go through, and there were bass and doré innumerable and monstrous to lure from the

vasty deep; and on Tuesday the great magnet of the distant city should draw us with its potent allurements over the river and along the rail, till in heat and dust, and worse, we should forget, or remember with a sigh, the sunshine, the coolness, the rural fragrance, the rustic scenery, and hospitable rest of Carratraca.

The reader, not knowing everything, naturally asks: What is Carratraca? Who is Carratraca? or, Where is Carratraca? according as he dimly imagines Carratraca to be an eatable, a man, or a village.

There was a time some five or six years ago, when Carratraca was the conundrum over which all Montreal vainly exercised its wits. The word of mystery, Quiz, newly chalked on the Dublin shutters, did not create more conversation and conjecture. Columns of newspapers, dead walls, fences, sidewalks, all bore the legend "Carratraca." As Douglas Jerrold said about Sordella, no one knew if it was a man or a castle. People consulted Webster, who was silent; Worcester, who was ignorant; and Montreal was in a fever, only allayed by—Carratraca!

At the Provincial Exhibition of 1869, in Montreal, the murder came out. Thirsty souls who wandered wide in search of something bibable besides flatpots and tepid soda, found at the booth of Messrs. Winning, Hill & Ware, without money, and without price, Carratraca. The discovery then flashed across their minds that Carratraca was a newly discovered mineral water, cool, moussant as champagne, with a peculiar taste, half fragrant and half saline, which utterly transcended all previous experiences, were they of Congress, Plantagenet, Caledonia, Seltzer.

So much for Carratraca. Humanity is prone to wander, and no sooner was the first problem solved than a second arose. Why Carratraca? What did it mean? Was it Italian, Greek, Latin, Spanish, Sanscrit, High-Dutch, or had W. H. and W. put the alphabet into that famous still of theirs and evolved Carratraca? The nomenclature of commerce, especially in fancy or medicinal preparations, is very happy as a rule. Odonto, Kalydor, Sapolio, Sozodont, Macassar, all these are taking, appropriate, original. Carratraca is just as pretty, quite as appropriate, but it was not manufactured for the occasion. It is a Spanish word, recalling all the romance of Iberian and Mauresque sources—Donnas with twany skins, luminous eyes, mantillas and little feet—Dons moustached, be-rapièred, haughty—mules with tinkling bells,—gay clad muleteers,—white currents,—plazas gay with coquettish costumes,—bull fights,—alhambbras,—and snow-covered sierras lost in the unpalpable blue of the sky.

In that capital series of papers in the *Cornhill*, "The Knapsack in Spain," I find all about Carratraca. This is what the traveller says:—

"Carratraca is a picturesque lonely little village planted on the side of a bare wild valley shut in by lofty grey mountains. In spite of its loneliness, or perhaps because



DOMINION



# CARRIAGE FACTORY.

*Morgan, Malloy & Malcolm,*

NO. 9 PARK ST., NORTH,

BETWEEN KING AND MARKET STREETS,

HAMILTON.

**We respectfully solicit a share of your Patronage.**

JOHN G. LYNN & Co.

The large boot and shoe establishment of Messrs. John G. Lynn & Co., is situated at Nos. 279 and 281 St. Joseph street, and is built of brick, three storeys high, having a frontage of thirty feet by a depth of one hundred and fifty on Maple Avenue. Employment is given to about one hundred and fifty hands, and a ten horse power steam engine is used. The front portion of the first floor is used as a show room and office, and in the rear is the engine room, sole leather department and warehouse. On the second flat is the cutting and fitting room; and the third flat is devoted to bottoming and finishing. Mr. Lynn has had many years experience in the States and turns out a very superior article.

of it, it is high in favor as a watering-place with the people of Seville, Cadiz, and Malaga, who muster there in great force during the autumn months. Rheumatic and cutaneous affections are, I believe, the special province of the waters, but as far as I could make out there is no ailment under the sun for which they cannot do something in the way of alleviation. Dyspepsia, hypochondriasis, loss of appetite, over-eating, over-work, or idleness, all these seem to find relief at Carratraca. But perhaps the strongest proof of the marvellous efficacy of these baths is to be found in a case which I saw quoted in the columns of *El Casacabel*. A middle-aged gentle man of ancient descent but impoverished estate had married a lady of mature years and some property, and having thus restored the fortunes of his house, was naturally anxious for an heir to his name. After waiting in vain he consulted a friend, who recommended a trial of the waters of Carratraca. The advice proved sound, for in due time, after a course of the baths, the worthy couple had the happiness of welcoming a little stranger. But the effect did not cease here. For the next fifteen years did that lady continue with astonishing regularity to present her husband annually with a pledge of her affection and proof of the potency of the Carratraca waters, and thus, though the continuance of his line was made pretty safe, the restoration of his family to its ancient splendor remained as far off as ever.

That is the legend of Carratraca. When Mr. — hands me the book, I observe that he does well to suppress the story of the hidalgo, as such marvellous effects might detract from the patronage the Spring is receiving, especially as regards fashionable mammas and American matrons.

Now knowing what Carratraca is, and why it is called Carratraca, the question naturally arises, Where is Carratraca? With the precision of a guide-book we answer:

"The Carratraca Springs are situated in the Township of Plantagenet, Prescott County, Ontario, about half a mile from the South Nation River, thirty miles from Ottawa City, and five miles from Brown's Wharf

on the Ottawa River, so having daily communication with Montreal and Ottawa City. The Springs are all contained in a natural basin, nearly nine hundred feet long, by one hundred and fifty feet wide. So numerous are the Springs and so enormous is the supply of water, they give rise to a large and ever flowing creek.

The Springs are hundreds in number, the waters rise through a strata of clay which overlies a bed of magnetic iron sand. A pipe has been driven through this sand to the depth of thirty feet without striking rock.

In sinking the wells now in use, at the depth of twelve feet from the surface, and after passing through from five to six feet of clay, many horns and bones of deer and other animals were found. Only a few years ago these springs were celebrated as a great resort for deer, and even yet scarce a day passes in summer but some can be seen."

People never read guide-books, and from the way in which they are written and printed, slipshod and careless, I don't wonder. Why can't a guide-book be as well written and as interesting as a magazine article?

It was recognizing this great fact and the principle that the press is the Archimedean lever which moves the world, that induced Mr. — to invite the writer to visit Carratraca, to taste the waters, to see the scenery, and to return and gladden the hearts of the public by a graphic and graceful narrative. It may not exactly answer the purpose, but that is my fault.

Five minutes had elapsed since the events narrated above took place. In this brief space of time I had recognized in my estimable hostess the sister of an old school-mate, and was on terms of intimacy with the house-dog. But it was not for this I had come to Carratraca, braving the beef-steak on the *Prince*, the roads and the mosquitoes. So, armed with a tumbler, we wound our weary way through the mud left by the recent freshet to the barn already mentioned. It was a big building, with a sticky clay floor, heaped with casks, barrels, and kegs. Two small platforms, with pumps in the middle, stood up amid the muddy confusion, and a man seated on a keg was working the brake of one of the pumps, while through a gutta-percha pipe into a funnel in the bung-hole of one of the barrels, was flowing the pure Carratraca.

Here, said Mr. — (filling a tumbler and handing it to me,) here is Carratraca.

I took the goblet filled with water as pure as distilled sunbeams run through an alembic of diamond,—sparkling,—moussant with gases of virtue as the jolliest Verzenay or Clicquot,—cold, so cold that a film clouded the glass. I tasted.

"Talk of your Sugar-of-lead wines, and your chemical nastinesses," said I, the enthusiasm of the poet breaking conventionalities like cobwebs—"who shall peer the perfection of the great Chemist, who with patient processes deep down amid the secrets of the earth, amid sands of gold, and diamond spar, and red iron, and a myriad im-

**JOHN G. LYNN & CO.,**

Manufacturers of

**Boots and Shoes,**

**WHOLESALE and RETAIL.**

---

*Retail Department:*

**279 & 281 ST. JOSEPH STREET,**

(CORNER OF MAPLE AVENUE OPPOSITE MURRAY STREET).

**FACTORY: 2, 4 and 6 Maple Avenue,**

**MONTREAL.**



C. D. EDWARDS.

The fire and burglar proof safe manufactory of Mr. C. D. Edwards was established in Canada in 1856, and is situated at 49 to 53 St Joseph street, Montreal. It is a handsome three-story stone building, having a frontage of fifty-five feet on St. Joseph street by a depth of one hundred and ten, and affords employment to about one hundred men, the motive force being supplied by a fifty-horse power steam engine. The safes of Mr. Edwards have gained a wide and well deserved celebrity throughout the Dominion, and have stood some very severe tests without injuring—but rather increasing—their reputation. One of their burglar proof safes was severely tested about two years ago at the store of Messrs. G. W. Warner & Sons, brokers, Montreal, where some burglars drilled the outer skin of the safe and charged it with such an immense amount of powder that the huge mass of iron was torn from its place, and the windows and doors of the building shattered; but the inner door of the safe, made of old steel, remained perfectly firm and the burglars gained nothing for their pains, except three years in the Penitentiary. This is only one of the many instances where Edwards' safes have withstood burglars attempts to blow them open. At the late disastrous fire at St. John's, P. Q., a number of Mr. Edwards' safes passed through the fiery ordeal and in every instance the contents were found perfectly uninjured.

palpable essences too subtle for clumsy analyses, has been mingling and distilling for thousands of years this perfect purity! When mastodons and megatheria, saurians and pterodactyls weltered in the swamps and amid the gigantic ferns of the pre-Adamite earth—when across the world the stars of the first twilight twinkled in Eden—when the bear and the deer drank of these waters and the Indian roving through these woods paused to lap and be refreshed, when in later days men gave them virtue and name eternal Carratraca, all hail! Chinkapins and pine-apples, what an odor! Clickot and St. Peary what an exhilarating bead! Mr.—, forgive the word, I don't want tumblers, give me pails, tubs, kegs, barrels, puncheons, the big tun of Heidelberg; quaffing, sipping, tasting, swallowing, drinking, these are too feeble, let me Swig!

And I drank seven tumblers, and burst into involuntary song.

Here follows my Idyl of Carratraca:—

This is what I imagined as the Idyl of Carratraca:—

I well from sunless rifts of earth,  
Through sand and sturdy granite,  
The brightest sunbeams gild my wave,  
The coolest breezes fan it,  
All elements the pure and free,  
All coolness and all sparkle,  
All bubble of the wine slopes  
Where Chamisso's bouquets sparkle,  
All fragrance of the violet  
Wet with the dew of morning,  
All molten sunbeams, see need ice  
My runlets are adorning

Ten thousand years my stream has run,  
So, poet, just throw back a  
Glance along the history of  
The spring of Carratraca.

In days when suns and stars were not,  
When chaos was a cooling,  
A bed of diamond molten hot  
Was plunged my primal pool in,  
And cool as autumn afternoons  
And sweet as stolen kisses,  
The first pure mountain sparkled up  
Pre-Adamite abysses.  
Mid ruins of the shapeless hills,  
Mid ghastly scars of valleys,  
The pained of my stream help up  
Her pure and brimming chalice.  
And Providence that wisely meant  
That man should never lack a  
Blessing, laid up a supply  
Endless of Carratraca.

The days of mastodons passed on,  
When shapeless meads wallowed  
In mud primeval, and their prey  
On wings of nightmare followed.  
And things unearthly one might deem  
The offspring of delirium,  
Snored and plunged about my stream  
Mammoth and megatherium.  
They passed in hideous love or war,  
But merrily gave back a  
Laughing echo to their roar,  
The rill of Carratraca.

I've caught in days when suns were new  
The earliest sunbeams' sparkle,  
I saw through skies amethyst blue  
The first soft twilight darkle.  
The soft-eyed deer drunk at my stream,  
The slinking wolf howling,  
In deep contemporaneous wish  
Or Sarathea or Eden.  
And women later on the brink  
Over shoulders would throw back a  
Breezy glance, ere they stooped to drink  
The waves of Carratraca.

And pine trees towering sunny side,  
Except grew audubony,  
And from their fossil submerging  
New forests green with glory,  
And gnats were deer and musgo red,  
And for the music singing  
My muscows the woodman-mace  
Upon the pine-tree ringing.  
And water still when I became  
A water, the toast of cities,  
Unlike the rustic streamlet that  
Babbled primeval ditties,  
And pressed and quaffed across the land,  
Men said: it does but lack a  
Title; so I won my name  
The name of Carratraca.

A name that's born in sunny Spain,  
Where up the rocky passes,  
Above are heard the lover's lute,  
The bell's of (other) asses.  
Where beauties plump in bodices red  
Coquette upon the plaza,  
Where swords, moustaches, masks and nuns  
Suffice to drive one crazy.  
And so while others praise my stream  
In stereotyped discourses,  
The poet may perceive in me  
Food for a thousand verses.  
I smack of more than iodine  
To contemplative palate,  
For you with memories I am rich  
At Fortunatus' wallet,  
And as you drink my double-stream,  
I find I shall not lack a  
Laureate to celebrate  
The spring of Carratraca.

ST. LOUIS,

A lake of Quebec, formed by an expansion of the River St. Lawrence, 9 miles S.W. of Montreal. Length 20 miles; greatest breadth 7 miles. The River Ottawa enters it by two channels on its W. side.

**MONTREAL**  
**SAFE & LOCK WORKS,**

ESTABLISHED BOSTON, 1838.

MONTREAL, 1856.

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**CHAS. D. EDWARDS,**  
MANUFACTURER OF



**Burglar Proof Safes, Iron Vault Linings,  
IRON DOORS AND SHUTTERS,  
COMBINATION BANK AND SAFE LOCKS, &c.**

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**FACTORY AND WAREROOMS,  
49 to 58 St Joseph St.,  
MONTREAL.**

### "BUY A BROOM!"

We remember, when a small boy, the deep impression made on our mind by the text in our copy-book, "Cleanliness is next to Godliness;" but in those days, we confess, our only idea of cleanliness was connected with soap and water, and a vigorous scrubbing with a flesh brush, an operation against which we loudly protested. Later on in life we learned that it is not alone cleanliness of the body we need, but cleanliness of everything around and about us, as well as cleanliness of thought and action, intent and deed. As for our habitations there is nothing for cleaning them like a broom; and although an old adage says, "a new broom sweeps clean," still every housewife will tell you that every new broom does not "sweep clean," for a good deal depends on the make of the broom as well as the manner in which it is used. Talking of sweeping we would remark that it is naturally a woman's province; see a man trying to sweep a carpet, he is about as graceful as a cow attempting to handle a musket; see a woman with a good broom in her hands, and the dirt knows it has to "git up and git," for their is no fooling about her sweeping. But to sweep well a woman needs a good broom; not a mere bunch of broom corn tied together "anyhow," which will fly to pieces at a moment's notice—or without any notice at all—but a well made, carefully tied broom of selected corn tops, securely mounted on a good handle. For such a broom we cannot do better than recommend our readers to pay a visit to the very extensive factory of Messrs H. A. Nelson & Sons, 91 to 97 St. Peter street, Montreal, a short sketch of which we propose to give. The last census returns show that there are 105 factories of brooms and brushes in the Dominion, employing 542 hands, and producing goods of the yearly value of over half a million of dollars. Of this trade Messrs. Nelson & Sons do about one-fifth, and give employment to over fifty hands, being about one-tenth of all the hands engaged in the business. Their store is a fine cut stone building five storeys high, with high basement and sub-cellar, and has a frontage of sixty-three on St. Peter street by a depth of one hundred and fifteen; the ceilings are high, and the large rooms (for almost every flat forms only one room) are well lighted and well ventilated. Messrs. Nelson also engage very largely in wooden ware, but their factory is not in Montreal. Entering at the front door we see a handsome show room, shelved all round, with five rows of tables running its entire length, and covered with fancy goods of all kinds. This is the show and sample room, and is well stocked with a great variety of what our American cousins would call "notions;" handsome cases of fine *médecins* pipes; stands of travelling bags; stocks of fancy writing cases; long rows of clocks—some of them solemnly ticking to remind the visitor that "time is on the wing," and he should not waste that of the clerks, uselessly looking at things he does not want to buy; large numbers of cane

chairs; long lines of bird cages, and a very extensive and varied assortment of druggists and tobaccoists sundries, with a goodly collection of toys, make up the display; and a better one in the same line of business it would be hard to find. On this flat the explorations of most visitors begin and end, for everything is sampled here and customers are not required to go from flat to flat to view each article. Not being a customer, however, we were courteously shown through the building by the junior member of the firm, Mr. F. E. Nelson, to whom we owe the pleasure of seeing how a broom is made; we first dive into the basement, which is light and lofty and is used as a packing and shipping room, as well as a store room for wooden ware, and we saw enough wash boards there to wash all the dirty linen aired during a session of the United States Congress—and that is saying a good deal,—and a sufficient number of pails to put out the biggest kind of a fire, provided there was a good supply of water. There is also a good supply of matches in this basement, and a large assortment of miscellaneous wooden ware. Ascending to the second flat we come to the store room for reserve stock of willow ware and sundries. Here is the rampant rocking horse in large numbers and great variety; here the fiery untamed velocipede tempts one to mount him and ride him around, while the long rows of bird cages suggest an after dinner smoke soothed by the gentle twitterings of a host of canaries. This floor is also used as a store room for wall and window paper, of which there is a large and varied stock, and for the storage of toys in cases. One portion of the room is appropriated for the mounting of looking-glasses, in which a large business is done. These glasses take three countries to perfect them; the glass is made in Germany, the frames in the United States, and the frames and glass are brought to Canada and mounted and backed in Messrs. Nelson's establishment. Reaching the third flat we come to the home of the brooms after their manufacture is completed on the flat above. Here are between two and three thousand dozen brooms done up in bundles of a dozen each, ready for shipment. All Nelson's brooms have a label with the firm name, and the quality and description of broom, attached to them. The fourth floor is the factory, and here about thirty men are constantly employed making brooms. The brooms are made from broom corn which is almost all imported from the Western States, very little being grown in Canada. The corn is sorted into various lengths, and the workman having placed a handle—which has been previously painted in a small room on this flat, if it is to be a "fancy" broom—in a vice proceeds to surround it with the shorter ears of corn, which are secured by a fine wire which is frayed out from a large reel. He then adds longer ears for the outside, and binds them for about two inches up the handle; next the broom passes to the sewing machine when it is squeezed into proper shape and the straws sewed together, the number of sewings depending on the quality of the broom, some only get-

**H. A. NELSON & SONS,**

*Importers and Wholesale Dealers in*

**EUROPEAN & AMERICAN**

**Fancy Goods,**

*And Manufacturers of*

**BROOMS, BRUSHES**

*Wooden-Ware and Matches.*

93, 95 and 97 St. Peter Street,

**MONTREAL.**

56 and 58 Front Street,

**TORONTO.**

ting one sewing, while others get as many as four or five. The brooms are afterwards cut square and scraped to remove any seed which may be in the ears. All the work is done by hand, and a good workman can make about sixty brooms a day. The fifth flat is the store room for the corn, and here about two or three hundred tons are usually kept in the bales in which it is imported. A portion of this floor is divided off into two bleaching rooms, each about twelve feet square, where the corn has to pass a night in company with a pan of burning sulphur before it is fit to be made up into brooms. One noticeable feature in this upper storey is that the roof slopes from the front and back toward the centre and all the waste water goes down through two iron tubes—one on each side of the building—to the sewer. The building is owned by Mr. H. A. Nelson, the senior partner, who has been an Alderman of the city of Montreal for ten years, is Chairman of the Finance and Park Committee and is personally very popular. Messrs. Nelson have been established over twenty-five years, and theirs is the oldest broom manufactory in Canada. Messrs. Nelson have also a branch establishment at Nos. 56 and 58 Front street, Toronto, which gives employment to about as many hands, and does as large a business as the Montreal house.

#### THE FUR TRADE OF CANADA

In the early days of Canada, then New France, the most important export was that of furs, which were taken to France and other countries, and there manufactured. After the conquest of Canada by the English, the fur trade received a great impetus, and the formation of the Hudson Bay Company, and the establishment by them of trading posts with the Indians greatly increased the traffic in the skins of wild animals. This trade, however, was only in the raw material; and it was not until within the last half century that anything like an effort to establish a manufactory of furs in Canada has been attempted with success. To-day, Canadian furs, manufactured in Montreal, Toronto, Ottawa, Quebec and other cities and towns, are known the world over, and are greatly sought after on account of the quality of the material and the excellence and elegance of the manufacture. This preference for Canadian-made furs is especially noticeable amongst the summer tourists of our cousins across the line 45°, who find that they can buy a better article, better made and more stylishly made in Canada, for little more than one-half what they would have to pay for it in the States. This advantage they are not slow to avail themselves of; and the consequence is a very considerable fur trade in summer by those provident people who are not foolish enough to think that it will be "always summer," and make provision for the "wintry wind," while the thermometer is "ninety in shade." The large proportions to which the fur trade of Canada has grown may, to some extent, be learned

from the statistics gathered from the census of 1871, by which we learn that 131 firms were engaged in the manufacture of furs in the four Provinces of Quebec, Ontario, New Brunswick and Nova Scotia, with an aggregate capital of \$1,159,938, giving employment to 1,861 persons, and producing goods to the value of \$2,875,000, the amount of yearly wages being \$389,419, and the value of raw material \$1,699,659. To give some idea of the quantity of animals destroyed to furnish material for this immense trade, we will quote the figures from the last return, shewing the number of each kind of skin used:—Beavers, 48,151; Bears, 2,553; Otters, 6,132; Martins, 17,582; Minks, 12,561; Deer, 19,271; Seals, 37,402; Muskrats, 488,182; other skins, 56,105; making a total of 688,239 fur-bearing animals slaughtered to provide warmth and comfort for man. Of course, "these skins are not manufactured in Canada," but a large proportion of them are, and some of our manufacturers are amongst the largest employers of labour in the Dominion. Foremost amongst these rank the well-known and old-established house of Messrs. Greene & Sons, 526 St. Paul street, Montreal, who have been forty-four years in the business, and may almost be said to be the fathers of fur manufacturing in Canada. They give constant employment to about 250 hands, and their goods are well and favourably known throughout the Dominion, from British Columbia to Newfoundland. Having ample capital, Messrs. Greene are able to command the best markets in the world for the various classes of furs, and are thus always able to supply a first-class article, a fact which is well known to the trade, and their energy and enterprise has gained them a high reputation. The firm has also a silk hat factory, at 114 Queen street, and one for straw goods at 526 St. Paul street, where all varieties of first-class goods are made.

#### ST. CATHERINES.

An incorporated town of Ontario, capital of the county of Lincoln, on the Welland Canal, and on the Great Western and Welland railways, 32 miles E. by S. of Hamilton, and 12 miles N.W. of Niagara. From its favorable situation it has become the centre of a large and rapidly increasing business. It contains churches of 7 denominations, 3 branch banks, several assurance and insurance companies, a commercial college, grammar school, convent, general hospital, 4 printing offices, from which 2 daily and several weekly newspapers are issued, and a number of stores. There are in the town 5 or 6 large flouring mills, several saw and planing mills, foundries and machine shops, sewing machine factory, soap and candle factories, tanneries, wollen mills, breweries, &c. Shipbuilding is also extensively engaged in. St. Catharines is celebrated for its mineral springs, and for its excellent hotels.

ESTABLISHED 1832.

# GREENE & SONS, MONTREAL,

WHOLESALE

## MANUFACTURERS AND IMPORTERS.

**FURS, HATS, STRAW GOODS,**

*Buffalo Robes, Fancy Sleigh Robes,*

**MOCCASINS, SNOW-SHOES,**

**Silk Hats, Cloth Caps, Scotch Caps, &c.**

We are large Manufacturers of the above Goods, and have on hand in their season, complete and full assortments of the various classes of goods.

*Factories :—***FUR GOODS, 525 St. Paul St.**

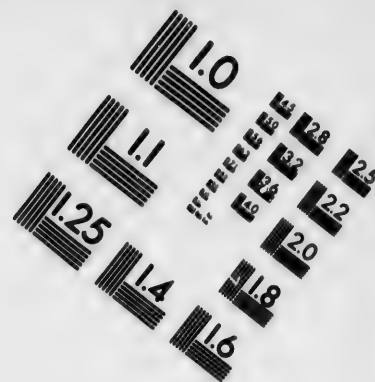
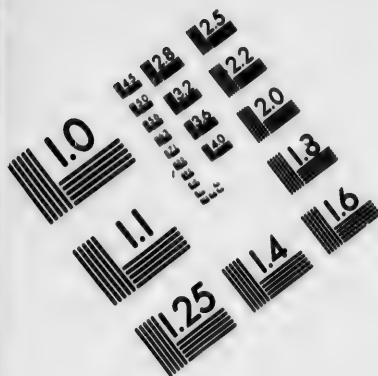
**FELT HATS, 114 Queen St.**

**STRAW GOODS, 525 St. Paul St.**

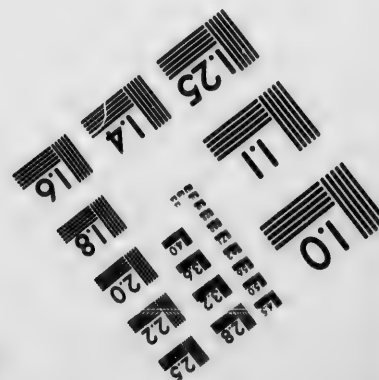
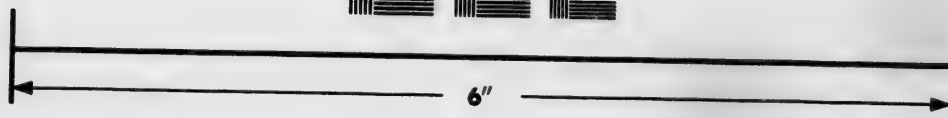
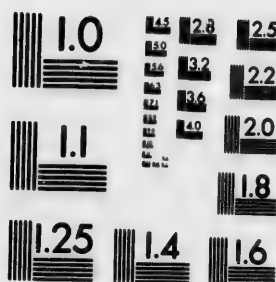
**GREENE & SONS, . . . MONTREAL.**







# IMAGE EVALUATION TEST TARGET (MT-3)



Photographic  
Sciences  
Corporation

23 WEST MAIN STREET  
WEBSTER, N.Y. 14580  
(716) 872-4303

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### BARSALOU'S SOAP.

Montreal from this time forth will be able to supply soap for the million through the agency of Messrs. J. Barsalou & Co., and that too of a quality unsurpassed or even equalled by that of any other house, owing to the peculiar facilities at their disposal for its manufacture. In the soap business there is considerable competition, more so than in most trades and each firm or dealer has a special recommendation for his article, which on paper makes it superior to all others, but in practice, as in all trades, one or other must come short of the expectation of the user. Messrs. J. Barsalou & Co.—the principals being sons of a very old and respected resident of this city—are individually novices at soap manufacturing, but by purchase they have acquired a patent unobtainable by any other individual in Canada and possessed by but few on this continent, whereby the manufacture of soap is made easy and its quality improved, without adding to the standard cost, by the mixture of ingredients with the usual compound, which by the ordinary process is a matter of impossibility. The old process of soap making is both tedious and costly, but by the process adopted by Messrs. Barsalou, it is expeditious and cheap. Before noticing the process gone through we should mention that, in order to conduct the manufacture on a colossal scale, Mr. Barsalou's father has erected for them an immense structure at the corner of St. Catherine and Durham streets. The building stands in rear of a very large plot of land, on which there once stood two of the old landmarks of the east end of the city, and is 35 x 152; three storey and basement, very strong, commodious, and neatly appointed for the special trade it is intended for. The ground and building cost \$30,000. The process of manufacture is very simple. The compound is first placed in large vats on the second storey and after all the ingredients have been gathered, it is run through a pipe into a cylinder on the floor below, and in this cylinder is boiled into its intended bulk. Inside the cylinder, when the manufacture is in process there is an "agitator" continually revolving, mixing up the compound and pressing it out of its first state. In this arrangement is the whole secret of the new process. The "agitator," as its name suggests, mixes the ingredients thoroughly and makes the liquid, and consequently the bulk of uniform composition, preventing "knots" from forming, and enabling oily "seasoning" to be introduced in the manufacture, which in other modes is a matter of impossibility. In the old mode of manufacture it requires a week to properly work the liquid, but by the means at the disposal of Barsalou & Co., the manufacture is perfected in one hour and a half, and the process of solidifying follows by the natural cooling process of exposure to air. In the cylinder, while the "working" is progressing, the compound is kept at a pressure of 80 degrees. When the boiling process is over, (one and a half hour,) the soap, for it is now really soap, is

run into an immense vat on the storey above. To more fully illustrate this we may mention that the principle on which this conveyance is worked is precisely the same as the patent coffee apparatus, which some may have seen at work in Mr. Adam Darling's establishment, and which in construction consists of a tumbler, a spirit lamp, and a glass globe. The coffee is in the tumbler, and a small quantity of water in the glass globe. The hot air escapes to the tumbler, and when the coffee is boiled, or rather is supposed to be boiled, the lamp is extinguished, at which instant the coffee descends to the globe, and if the lamp is lighted again, as quickly ascends, leaving the water in the globe. The boiling of the soap would continue so long as the fires are kept in, but the instant they are put out the ascent commences with a velocity really startling. From the cylinder the soap is ejected into an immense vat, twelve feet deep, capable of holding 25,000 pounds of soap. From this vat, in order to make the compound uniform, it is run from the second storey into a "crutcher" which refines it, and from this "crutcher" it is run off into large frames, in which it is allowed to solidify. The process of manufacture, when the liquid is run from the crutcher is completed, and when solidification has taken place the labour of working it into marketable shape is commenced. This labour, though more arduous than required to compound the soap, is simple and very perfect. Messrs. Barsalou have become possessed of a patent frame, made of wrought iron, the sides and ends of which are removed before bringing the composition in contact with the knife. The knife is nothing more than wire stretched between two uprights on a frame, which is thrown over the alap of soap, and then drawn by a crank to the position it occupied before it was thrown over the slab. The mould of soap is stationary, and is cut into slabs, which are moved from thence to another cutter. This latter cuts each slab into three, and then by a simple process the three slabs are moved crossways of the original cut and again cut into sixty squares of one pound each. These are then moved over to another hand who stamps the soap as it is in seen on the market. This latter process is the longest as it is all done by hand, but when the factory gets in full blast Messrs. Barsalou intend doing this part of the work by steam. By this hand-pressing a man can stamp two hundred boxes of 60 pound each, in a working day. The cylinder in which the soap is worked will hold about 2,000 pounds and can be filled in one day at least three times. From this it can easily be seen that by the multiplication of cylinders the production can be increased.

When Messrs. Barsalou obtained the sanction of the City Fathers to proceed with the manufacture they guaranteed there should be no stench emitted from the factory, that would endanger the health of the residents of that locality. He knew whereof he spoke when he gave this guarantee for a more perfectly wholesome atmosphere does not surround any factory in this city.

# J. BARSALOU & CO.

Manufacturers of the following First-Class Brands of

## SOAP

"DOMESTIC BAR,"

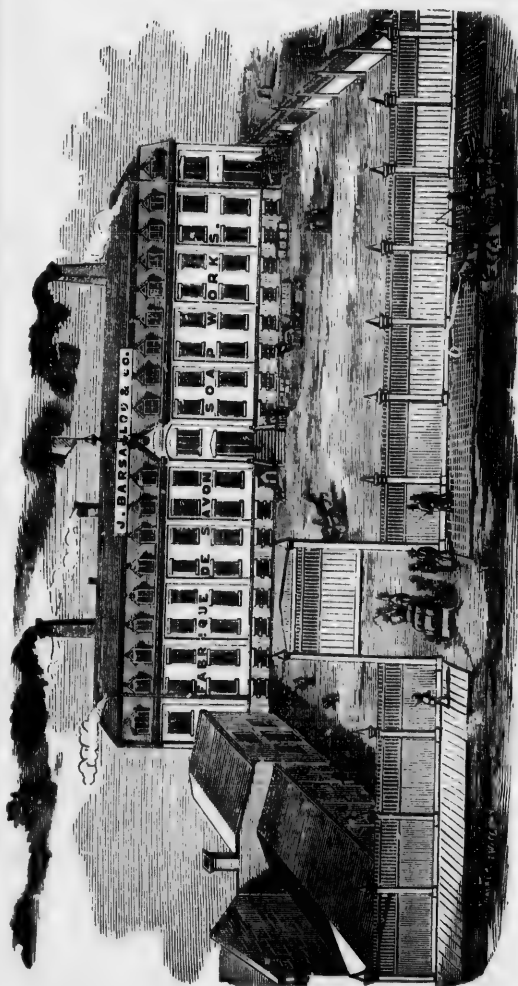
"Imperial Laundry,"

"STEAM REFINED FAMILY,"

"No. 1 BROWN,"

"WHITE OLIVE,"

"White Almond."



OFFICE AND WORKS:

Corner St. Catharine and Durham Sts.,

**MONTREAL**

*All Orders punctually attended to.*

There is not the least smell inside or out. Messrs. Barsalou buy their tallow rendered, but when, in course of time, their business extends to such proportion as to warrant them rendering their own it is their intention to do the work outside the city, thus keeping faith in every respect with the civic authorities. Soap factories as a general rule are dirty, internally and externally also, but the one under notice is clean enough for the most fastidious sanitarian. Of the quality of the soap manufactured, it is for the housewife to test and endorse, but the ingredients of which it is composed we know from personal knowledge are superior to any used by any other firm. To mention them would of course divulge the secret of its excellence, and give an opportunity to the unscrupulous to commit fraud. The process of manufacture was illustrated to a large number of prominent citizens and members of the city press, and to give some idea of the quality, we may state that one gentleman who had used Barsalou's Domestic soap for toilet purposes — though it is not claimed to be a toilet soap — said that the process of washing with it was so agreeable, that he felt a constant desire to be washing. This may be excessive flattery, but the recommendation which is embodied in it is just. The firm is only a young one, and necessarily have to look before they leap, but it is their intention, the coming summer, to engage in the manufacture of fancy toilet soaps, thus putting themselves in competition with every branch of the trade. Everyone will admire the pluck which prompts this, and the fellow citizens of Messrs. Barsalou will, no doubt, wish them every success, and aid them in attaining it by their own personal demands. There are six brands now being manufactured, which are stamped and patented as "Domestic Bar," "Imperial Laundry," "Steam Refined Family," "No. 1 Brown," "White Olive," and "White Almond." All are excellent articles, but the domestic is *par excellence*.

The machinery is the best that can be obtained and is run by a 25 horse power engine, manufactured by J. Laurie Brothers of this city. The boiler is 40-horse power capacity and located in the basement of the building.

#### POPULATION OF CANADA

by voting districts; number of voters and number of votes cast at last election in the District.

DISTRICTS.	Population.	No. Voters.	Votes Cast.
Addington.....	21,312	2,966	2,183
Albert.....	10,672	1,948	1,570
* Algoma.....	10,000	†	712
Annapolis.....	18,121	2,589	1,098
† Antigonish.....	16,512	2,069	
† Argenteuil.....	12,806	2,000	
Bagot.....	19,491	3,132	2,283
† Beauce.....	27,253	3,776	
Beauharnois.....	14,757	2,372	1,057
Bellechase.....	17,637	2,373	1,500
Berthier.....	19,993	3,133	1,840
Bonaventure.....	15,826	2,352	1,805

DISTRICTS.	Population.	No. Voters.	Votes Cast.
Bothwell.....	29,701	3,016	2,737
† Brant, North.....	11,493	2,093	
Brant, South.....	29,766	3,020	2,482
Brockville.....	10,475	2,385	1,778
† Bromes.....	13,767	2,702	
† Bruce, North.....	17,183	2,509	
Bruce, South.....	31,332	5,268	4,303
Cape Breton.....	26,464	2,820	2,359
Cardwell.....	15,500	2,808	2,344
Cariboo.....	1,955	464	232
† Carleton, N.B.....	19,938	3,748	
Carleton, Ont.....	1,739	3,145	1,948
Chambly.....	10,498	2,133	1,676
Champlain.....	22,052	3,471	2,115
Charlevoix.....	15,882	2,882	1,692
Charlotte.....	25,882	4,159	2,740
Chatenugny.....	16,166	2,029	1,430
Chicoutimi and Saguenay.....	19,281	2,493	1,888
Colchester.....	23,331	3,706	2,769
Compton.....	12,665	3,162	1,922
Cornwall.....	7,114	1,280	678
Cumberland.....	23,518	3,502	2,781
Digby.....	17,037	2,448	1,588
Dorchester.....	14,704	2,579	1,706
Drummond and Arthabaska.....	31,891	5,101	1,478
Dundas.....	18,777	3,277	2,705
Durham, East.....	19,064	3,475	2,096
Durham, West.....	18,316	3,114	2,240
Elgin, East.....	20,870	4,962	3,261
Elgin, West.....	12,796	2,504	2,107
Essex.....	32,097	5,695	2,513
Frontenac.....	16,310	2,468	1,868
Gaspé.....	10,941	1,638	904
Glengarry.....	20,524	2,763	2,272
† Gloucester.....	18,810	2,357	
Grenville, South.....	13,197	2,538	2,101
Grey, East.....	22,193	4,263	2,687
Grey, North.....	18,560	3,218	2,561
Grey, South.....	18,622	2,863	2,111
Guysborough.....	16,555	1,883	1,303
† Haldimand.....	19,042	†	
Halifax.....	56,914	7,164	6,399
Halton.....	22,606	4,356	3,273
Hamilton.....	26,716	†	3,578
Hants.....	23,301	3,443	2,774
Hastings, East.....	17,392	2,396	2,027
Hastings, North.....	17,392	2,396	2,027
Hastings, West.....	14,365	3,095	1,463
† Hochelaga.....	26,640	4,294	
Huntingdon.....	16,394	2,476	1,924
Huron, Centre.....	22,791	4,050	2,240
Huron, North.....	21,862	3,866	3,165
† Huron, South.....	21,512	3,672	
† Iberville.....	16,413	†	
Inverness.....	23,415	3,504	2,325
† Jacques Cartier.....	11,179	1,880	
Joliette.....	23,075	2,429	1,975
† Kamouraska.....	21,254	2,654	
Kent, N.B.....	19,101	3,360	2,642
Kent, Ont.....	26,836	5,127	3,718
King's, N.B.....	24,593	4,193	3,040
King's, N.S.....	21,510	3,984	1,988
Kings, P. E. I.....	23,060	†	4,730
Kingston.....	12,407	2,431	1,761
† Lambton.....	31,994	4,856	
† Lanark North.....	18,830	3,162	
Lanark, South.....	19,190	3,161	2,205
† Laprairie.....	11,861	1,684	
† L'Assomption.....	16,473	2,277	
† Leval.....	9,472	†	
Leeds and Grenville.....	13,530	2,344	1,682
Leeds, South.....	20,716	3,701	3,201
† Lennox.....	16,396	3,500	



Votes  
 Cast.  
 16 2,737  
 13  
 20 2,482  
 35 1,778  
 22  
 18 4,303  
 0 2,359  
 8 2,344  
 4 232  
 8  
 5 1,848  
 3 1,676  
 1 2,115  
 2 1,698  
 9 2,740  
 9 1,430  
 3 1,888  
 5 2,760  
 2 1,927  
 0 878  
 2 2,781  
 8 1,588  
 9 1,706  
 1 1,478  
 7 2,705  
 5 2,096  
 4 2,240  
 2 3,281  
 4 2,107  
 5 2,513  
 8 1,888  
 8 804  
 3 2,272  
 7  
 8 2,101  
 3 2,687  
 8 2,561  
 3 2,111  
 8 1,303  
 4 6,399  
 0 3,273  
 5 8,578  
 3 2,774  
 8 2,027  
 1 463  
 3 924  
 0 2,240  
 8 3,165  
 2  
 4 2,325  
 0  
 9 1,975  
 0  
 7 2,642  
 3 3,718  
 3 3,940  
 4 1,988  
 1 4,730  
 0 1,761  
 3  
 2  
 4 2,205  
 7  
 4 1,682  
 1 3,201  
 0

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## Population of Canada by voting districts—Continued.

DISTRICTS.	Popu- lation.	No. Voters.	Votes Cast.
Levis.....	24,831	4,268	3,242
Lincoln.....	20,672	3,861	2,683
Lisgar.....	3,109	642	501
† L'Islet.....	13,517	1,687	1,238
London.....	15,826	3,741	2,328
Lotbinière.....	13,576	2,065	1,064
† Lunenburg.....	23,834	3,531	2,680
Marquette.....	†	†	680
Maskinongé.....	15,079	1,995	1,371
Megantic.....	18,879	3,204	1,876
Middlesex, East.....	25,055	4,714	4,028
† Middlesex, North.....	21,519	†	†
† Middlesex, West.....	20,195	3,254	2,354
† Missisquoi.....	16,922	3,338	2,633
Monck.....	16,179	3,326	2,633
† Montcalm.....	12,742	†	†
† Montmagny.....	13,555	1,790	1,371
† Montmorency.....	12,075	1,485	1,145
† Montreal, Centre.....	23,903	6,068	4,629
Montreal, East.....	46,291	7,750	6,031
Montreal, West.....	37,031	6,837	4,550
Muskoka.....	4,895	†	1,443
Napierville.....	11,688	1,639	1,358
New Westminster.....	1,356	404	304
Niagara.....	3,693	930	605
Nicolet.....	23,262	3,244	2,241
Norfolk, North.....	15,390	3,142	2,098
Norfolk, South.....	15,370	2,967	2,046
Northumberland, N.B.....	20,116	2,975	2,132
Northumberland, (Ont.) East.....	21,758	3,827	3,055
Northumberland, (Ont.) West.....	17,328	3,361	2,475
Ontario, North.....	25,967	4,856	3,516
Ontario, South.....	19,923	4,038	3,127
Ottawa, City.....	21,545	3,875	2,559
Ottawa, County.....	35,649	6,161	2,499
Oxford, North.....	24,559	4,142	2,521
Oxford, South.....	23,678	4,225	2,029
Peel.....	16,369	3,332	2,584
Perth, North.....	25,377	4,967	3,454
† Perth, South.....	21,150	3,790	2,879
Peterborough, East.....	18,706	2,389	1,872
Peterborough, West.....	11,767	2,262	1,793
Pictou.....	32,114	5,001	4,302
† Pontiac.....	15,810	3,314	2,507
Portneuf.....	22,569	3,373	2,507
Prescott.....	17,647	2,372	1,616
Prince.....	28,064	†	2,473
Prince Edward.....	20,336	4,150	3,424
† Provencher.....	2,143	418	318
† Quebec, Centre.....	18,188	2,353	1,826
† Quebec, East.....	28,305	†	†
† Quebec, West.....	13,206	1,826	992
† Quebec, County.....	19,607	2,720	2,029
† Queen's, N.B.....	13,847	2,469	786
† Queen's, N.S.....	10,554	1,551	1,145
† Queens, P.E.I.....	42,574	†	†
Renfrew, North.....	14,838	1,868	2,174
Renfrew, South.....	14,935	1,816	1,551
† Restigouche.....	5,575	932	786

DISTRICTS.	Popu- lation.	No. Voters.	Votes Cast.
Richelieu.....	20,048	3,247	2,439
Richmond, N.S.....	14,268	1,517	1,050
Richmond and Wolfe.....	20,036	3,623	2,003
Rimouski.....	12,958	4,040	2,082
Rouville.....	17,634	3,018	885
Russell.....	18,341	3,214	2,187
† St. Hyacinthe.....	18,310	2,959	2,187
St. John, City.....	28,805	3,645	2,363
St. John, City and County.....	52,120	6,592	4,387
St. John's, P.Q.....	12,122	†	†
St. Maurice.....	10,655	1,689	1,096
Saskatchewan.....	2,820	830	564
Shefford.....	10,077	3,939	2,790
† Shelburne.....	12,417	2,000	1,492
† Sherbrooke.....	8,516	1,788	1,492
Simcoe.....	33,719	6,031	4,636
† Simcoe, South.....	23,670	†	†
† Soulanges.....	10,808	1,842	1,492
† Stanstead.....	13,138	†	†
Stormont.....	11,873	2,167	1,702
Sunbury.....	6,824	1,402	1,051
† Temiscouata.....	22,401	2,754	2,187
† Terrebonne.....	19,591	†	†
Three Rivers.....	7,570	1,022	577
† Toronto, Centre.....	20,647	4,366	3,429
Toronto, East.....	15,090	4,116	2,378
Toronto, West.....	20,325	6,024	3,519
Two Mountains.....	15,615	1,927	1,749
Vancouver.....	1,419	553	357
† Vaudreuil.....	11,093	2,167	1,702
† Verchères.....	12,717	2,126	1,616
Victoria, B.C.....	4,540	959	607
Victoria, N.B.....	11,641	2,166	1,297
Victoria, N.S.....	11,346	†	1,145
Victoria, North (Ont.).....	10,956	1,585	1,205
Victoria, South (Ont.).....	13,244	3,472	2,515
† Waterloo, North.....	19,256	†	†
† Waterloo, South.....	20,995	†	†
Welland.....	20,677	4,409	3,175
Wellington, Centre.....	21,118	3,852	3,016
Wellington, North.....	18,740	3,077	2,738
Wellington, South.....	25,431	3,952	2,135
† Wentworth, North.....	16,245	2,875	2,059
Wentworth, South.....	14,638	2,658	2,059
† Westmoreland.....	20,355	4,977	3,852
Yale.....	1,316	180	119
† Yamaska.....	16,317	3,252	2,507
Yarmouth.....	18,550	3,054	1,954
† York, N.B.....	27,140	4,400	3,429
† York, East (Ont.).....	19,360	†	†
† York, North (Ont.).....	24,262	4,455	3,000
York, West (Ont.).....	16,260	2,789	1,439

\* Population estimated.

† Election by acclamation.

‡ Number of voters not given.

§ Opposing candidate retired before poll opened.

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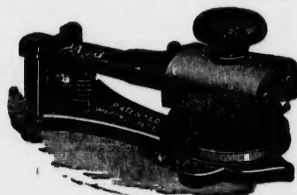


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